

Original Correspondence.

CAST-STEEL—MAGNESIAN CRUCIBLES.

SIR.—Last month M. Bouscängault presented a note of M. H. Caron to the Academy of Sciences on the air bubbles and blisters in steel, and in which he stated that cast-steels in general, and particularly those which are termed in commerce soft, because the tempering modifies very little their hardness, are subject to contain bubbles. In order to avoid these, or at least to lessen the number and dimensions, the general practice is, as soon as the jet is run, to weigh the ingot with a piece of cast-iron, fitting exactly into the ingot mould. The effect of this piece is to cool the surface in fusion which it touches, and thereby prevent the gases from escaping, and producing numerous cavities, which would deteriorate the value of the steel cast without this precaution.

These blisters are of two kinds. One sort, with metallic and iron-coloured lustre inside, seem to have been produced by a gas incapable of oxydising the metal; this is the most numerous. The other, presenting to the eye the varied colours of iron or of steel heated in the presence of an oxydising gas, is much more seldom met with than the first, and is only met with at the surface of the ingots. It is certain that hydrogen, carbonic oxide gas, nitrogen, or a mixture of these gases, are the only possible causes of these blisters. Have these gases originated from the atmosphere of the furnace? or have they been absorbed in nature by the metal in fusion? If they do not proceed directly, and without transformation, from the ambient gases, how and why does it happen that they are developed just at the moment of the solidification of the metal? Lastly, how are these bubbles to be avoided? Such are the questions which M. Caron proposed to himself, the answers to which he has endeavoured to furnish by direct experiment.

Steel, cast in a crucible of refractory earthenware, and left to cool slowly, is always full of cavities lined with crystals; often, even, when the gases of the furnace have penetrated in sufficient quantity into the crucible, the ingot is found to be surmounted by a metallic and cavernous efflorescence, occupying a considerable volume. This is never seen in the case of iron.

These two fusions of steel and of iron having been made under the same circumstances, the two metals have had to be exposed to the influence of the same gases composing the atmosphere of the furnace. There are, therefore, only two hypotheses now possible:—1. That the direct absorption of the hydrogen and carbonic oxide gas of the furnace by the metal in fusion may lead us to suppose that steel possesses the property of absorbing these gases, and that iron does not.—2. That, not admitting this direct absorption as demonstrated satisfactorily, we may be of opinion that the bubbles proceed from a disengagement of gases, caused by the action of the carbon (which distinguishes iron from steel) upon some substance mingled with, or dissolved in, the steel.

In order to determine which of these two hypotheses is the right one, M. Caron considered that it would be sufficient to melt steel in a porcelain tube, traversed by a current of hydrogen or carbonic oxide gas, and to ascertain the presence or absence of bubbles. When the cup in which the steel is placed is of porcelain, no efflorescence is perceived after the cooling of the molten metal; but the surface of the ingot which touches the porcelain is covered with cavities similar to those remarked in steel melted in a crucible. This being the case, M. Caron tried to know whether the nature of the vessel in which the fusion took place did not exert some influence on the results obtained, so he substituted for the porcelain cup a vessel of magnesia, and afterwards one of quicklime (both these cups being separated from the porcelain tube by a layer of platinum); he then obtained ingots perfectly free from cavities, efflorescence, or blisters.

These experiments demonstrate that it is not the hydrogen nor the carbonic oxide gas, absorbed by the iron or steel in fusion, which produces the blisters; they show, moreover, that the bubbles proceed from two causes, which contribute equally to the formation of carbonic acid gas. These two causes are, first and foremost, the oxide of iron produced by the oxidising atmosphere of the furnace; next, the decomposition, by the carbon, of the steel, of the silicate of iron formed at the contact with the silica of the crucibles. M. Caron states that it is very easy to obtain, by compression, crucibles of magnesia very resisting and inflexible. They have the advantage over chalk crucibles of being able to be preserved for a very long time without alteration. M. Regnault states that Tillotson has operated successfully at the Sevres manufactory in fabricating magnesian crucibles. He compresses the magnesia by means of a lever-beam, and so infusible are they that platinum may be readily melted in them.

C. H. D.

Paris, March 22.

THE MINERALS OF HETTON.

SIR.—Will you allow me to correct an error I committed in the article I sent you, and which appeared in last week's Journal. The lime rock is mentioned as terminating to the "south," it ought to be "south-west."

Also, since my last report, I have been informed that the North-Eastern Railway Company have twice surveyed for a line from the north of Belford, by Lowick, to Cornhill. This would bring railway communication much nearer to Hetton; and, if I judge rightly, a far better line for the company might be made on the west side of Belford, thence by Holburn, Barn Moor, and Cornhill. No doubt when the railway directors know that an influential company is forming for working the Hetton minerals they will gladly give every facility for the transmission of minerals. The more so, because at the same time they will shorten their line from Newcastle for passages to the north-west. The railway thus made, passing through a highly mineralised country, would command in short time a large traffic.

I notice that Mr. Boyd, the eminent mineral surveyor, in his work "On the Mountain Limestone," observes that all the land north-north-west of Belford is abundant in minerals, and well worth looking after.

March 20.

SAMUEL JENKIN.

EXPLOSIONS IN COAL MINES—HOW TO AVOID THEM.

SIR.—Much has been said upon the subject of explosions in coal mines, yet, after all that has been said, many of our fellow-creatures are struck down in the midst of life by these fatal explosions. Can they be prevented, or can they not? If they cannot be prevented, then the path of the miner is dark indeed. Is it that we are deficient in chemical or mechanical knowledge, or is it for the want of practically applying the knowledge we already possess? I am convinced that with our present knowledge we may prevent explosions: as a people we are very stubborn in adhering to our old habits and customs, even at the risk of life and health, and if anyone points out to us the dangerous path we are pursuing we are often even unwilling to take good advice.

By what I can learn from reading the accounts of the late explosions in Wales and Wigan, they appear to have been caused through the want of attending to small things, and keeping strict discipline amongst the workpeople. It is the custom at some places for the miners to find their own lamps, when, as a natural consequence, they will look at cheapness rather than quality: at other places, miners are allowed to take home their own lamp-gauze, and clean them for themselves, and the method they adopt for cleaning them is this—they place the gauze in the fire until the wire is red-hot, and this is repeated every day they are working. Now, any man must know that however good the wire of which the gauze is made may be, the substance being so small, it must soon become very brittle, and nearly drop to pieces by its own weight. No wonder, then, that the blaze should be so soon driven through it when it is filled with gas—the wonder, indeed, is that there are not more explosions from this uncertain and dangerous plan. At many collieries, too, the men are allowed to have their lamps unlocked in almost any part of the mine: this is a very unsafe plan, and one which cannot be too strongly condemned. At many places there is a mixture of lamps and candles, and when the men get to work they are allowed to exercise their own judgment whether they use a lamp or a candle. This plan has caused many fatal accidents.

Having now referred to a few of the causes which lead to explosions, I will briefly point out what I consider the best and safest means for preventing explosions, and the plan that I speak of has been carried out for many years at places where I have been employed, and found to answer well. In the first place, where there is any gas lamps should be used exclusively, and not a mixture of lamps and candles. The lamps used should be Stephenson's, for the Davy is not safe. All lamps should be bought by and belong to the employers. The material of which the lamps are made should be of the best possible quality that can be obtained. They should be made in the best possible manner, with the best possible workmanship. They should be cleaned every day with flint-dust by men and boys employed by the masters. The lamps should never be allowed to be taken from the pit by the men; they should be given to them in the morning locked, and delivered up at night in the same manner. If anyone in the mine happens to have his light put out, he should be compelled to

come to a certain place to have it re-lighted. Neither a manager, viewer, deputy-underlooker, nor any other person should be allowed to have a key to unlock the lamps, except those stationed at proper places. I speak particularly upon this point, because I know from experience that even deputies and managers have been imprudent at times when they have been allowed to have a key, and have unlocked lamps, where there have been explosions caused through it; whereas, if they had not had a key they could not have done it. A painted rule should be fixed at the top of the pit, where it could be seen by all the workpeople, stating that if any matches or pipes were found upon any workman's clothes he should suffer imprisonment. A question was asked at the inquest on the late explosion at Wigan—How to meet sudden outbursts of gas? I have no hesitation in saying that if the plans I have here stated were constantly carried out, with the most strict discipline amongst the workpeople, explosions need not happen, either through sudden outburst or any other cause.

Barnsley, March 20.

GEORGE ADCROFT.

SOUTH WALES SLATE QUARRIES.

SIR.—After having mentally winnowed "Pioneer's" letter, and separated the "chaff" from the "wheat," I believe I find the substance to be that he wishes to know whether I have ever seen the South Glog and the Clara and Lilac—"the three distinct quarries, now the Imperial?" In reply, I beg to inform him that I have visited the Glog, but not the South Glog; that I have made every enquiry among the workmen who are acquainted with that district, and they state they cannot tell me, and never heard of the Clara and Lilac; but that I shall shortly inspect the Imperial Quarries, and that if they are—as I have reason to believe the South Glog is—good, I shall only be too happy to eulogise them. I am desirous to see the slate quarries of Pembrokeshire developed, but wish to prevent people losing money in bubbles, because this will only retard the progress I desire to see attained. A little more "grain" is discovered in his query—what knowledge I can impart from Henlys and Longhouse, and what I know of them? These are situated within a mile of my house; they are mere threads; but the metal is excellent, as I have already stated. He desires further to be enlightened respecting Sealyham, which is under water. As this quarry has been worked some twenty or thirty years, and has a history, it is fully treated of in my forthcoming brochure; I will merely say that many hundreds—I might almost say thousands—of houses in the locality are covered with the slate, which is very good indeed, but that the quarry, as hitherto worked, could not by any possibility be made to pay, and is condemned by all practical men. I can further inform him that every probability exists that Sealyham vein is the Longhouse vein, and that Henlys and Trwynllwyd, or True, as he terms the latter, will be found in that locality. There is an old proverb—*No autor ultra crepidam*—which he would do well to remember when he launches forth on geological disquisitions, and then he might not betray such delightful veracity as he does when he talks of Trwynllwyd, the Glog, and the Penllyn and Aberdern Quarries being on the same vein. If he will come here I will show him that there is a fault which commences at Pwllstryd, passes under Mathry, along from Priscilly St. Lawrence to Ford Bridge, which cross-course throws out the whole of the strata, and shifts them to the locality of the last-named place; he will find that exactly the same number of greenstone dykes, which are found running east and west from the coast, are in their places (but diverted a little more north) in the region of St. Dogwells and Sealyham; and that the Longhouse and Sealyham slate is precisely similar. It would be interesting if a vein like Henlys and Trwynllwyd could be here found, as this would place the point beyond a doubt.

A little more matter pertaining to the point may be discovered in his covert allusion, to the effect that "a man may write well, and thus very much mislead the public." Now, I really do not perceive that because a man writes well he must of necessity delude the public, but so says "Pioneer." However, let us see who is the most likely man to mislead. The one writes under a *nom de plume*; extols a certain quarry; withdraws his name, so that the public are unable to judge whether he is an interested or disinterested advocate. The other gives his initials and address; has a large stake in Pembrokeshire quarries; would very much like to realise, and yet advises investors to be cautious; whose friends are largely interested, and has others in whose lands veins exist.

I most cordially concur with "Pioneer" that there are numerous quarries which "stand up as monuments of ignorance and stupidity"—he might have added, of the facility with which a too confiding public is relieved of its cash by unscrupulous operators. I trust "Pioneer's" "thirty or forty quarries" may long flourish, and may never become memorials of dishonesty or bad management.

J. F. N. H.

Velindre House, Llanrhaeadr, Denbighshire.

SLATE QUARRIES—ANALYSIS, PROMOTERS, &c.

SIR.—There is so much valuable information in your widely-circulated paper, that even when such information is confined to slate quarries alone a very wide field is opened for remarks, which may in some degree help to give the public sound knowledge in regard to them. It gives me great pleasure to contribute my mite in this way when your columns are open to me, as they always hitherto have been, and when I have an hour or two to spare to write you my thoughts.

The first thing that arrests my attention at present is the letter signed "J. F. N. H.," in the Journal of March 10. He says—"There is one infallible test as to the durability of slate, and that is analysis." I do not care to quote his sentence to the end, because I agree that the character of the analyser is all essential; but I assert broadly that analysis, even when made by the most eminent men, and men of the most *undoubted* character, is not of the least *practical* use. This bold proposition, I think, I shall be able entirely to support. I hope that "J. F. N. H." has been at the "Museum of Practical Geology and Royal School of Mines," in Jermyn-street, London; but, if so, he has drawn a very considerably different conclusion from that I have drawn after a recent lengthened interview with the authorities there, and especially with the Professor in the Slate Department of that Institution, and who, by the way, also drew for Government the Mineralogical Survey Map of North Wales. But, first, let me state what was the object of my visit there. I very well know a quarry there, the slates of which have one striking peculiarity—indeed, I think I may well say *advantage*—that of bearing heat in a blacksmith's fire to a degree that would melt iron, without cracking or flying whilst in the fire, and without calcining, decomposing, or even changing colour when they are taken out. I thought this peculiarity might be explained by ANALYSIS, under the very high auspices of the above institution. But see what was the result: the Professor kindly took me into the analytical laboratory, and there I had a long interview with the analyser, the result of which may be summed up in a few words—"We can give you the exact component parts of your slates by analysis, but that would not enable us at all to say why such component parts should make the slates capable of bearing such great heat without any apparent effect on them." I do not think it is illogical from this fact to draw the general conclusion *ex uno discit omnia*, and to say that scientific analysis will not determine what is the cause of difference between Cambrian and Silurian slate as a general rule, nor why the slates of any one quarry, whether in North or South Wales, should be better than those of any other.

If, then, science cannot aid us in this matter, we must have recourse to other sources from which to get our TESTS. These tests, I believe, will be perfectly sure, as they only require the use of common sense, entirely divested of any practical quarryman's knowledge, and still less of any scientific man's analysis. I think I have a right to place first, as a test of the most durable slate, that of *trial by fire*. Take, in the first instance, an unsplit SMALL BLOCK—say, 2 in. thick—and a single slate of best or second quality (the latter, we will say, 1-5th or 1-6th of an inch thick, and the former 1-3d to 1-4th of an inch thick). Submit, in the first instance, the block to a blacksmith's fire, well piled with coals, and let the bellows be blown for (say) four or five minutes—that is, until a heat will be produced which would melt iron. If the block neither cracks nor flies while in the fire, nor calcines, decomposes, nor changes colour when it is taken out, you will have the very best test of the durability of the slate. With a block, however, this result will follow, and this only—that, if 2 in. thick, it will follow the natural lamination or cleavage of the slate in three or four instances in the same way they are produced by the slate splitter's chisel, and with the same cleavage, but there will be no cracking, flying, calcining, decomposing, nor changing of colour from the effects of the fire. Then try, second, the best quality slate in exactly the same way, and the results will be the same, except that when *red hot* it will become transparent. The slate of second quality will produce the same effects, except that it will not be quite so transparent.

This test I look upon as the best and surest as to the durability of slates, and, consequently, also of their highest marketable value. But I may well

be told that this is only an accidental property of some slates, and I accept the objection—nay, I am willing to do more, and say that the great bulk of slates which I know do not possess this property, and I know none, except from one quarry, which do. Be it so, but the quarry, or quarries, which do possess it are more valuable than any other, or others, if they can bear also the three following tests, which I will now enumerate:

- 1.—That they should *saw* well by machinery.
- 2.—That they should *dress* well by machinery (that is, by Mr. Greaves or Mr. Francis's patent).
- 3.—That they should *plane* well by machinery.

The third test is scarcely worth mentioning, because SLABS are usually made only from some corner of a quarry where the rock is not so "kind" as in the general run of the vein.

Although I have headed my letter with "promoters" as well as "analysis, &c.," for a distinguishing mark rather than anything else, I cannot help remarking that I could add many facts, confirmed by practical knowledge, which would show that the same system as to promotion prevails quite as much in North as it does in South Wales, but for the present I had rather be silent.

CAMBRIAN.

WASHOE UNITED CONSOLIDATED GOLD AND SILVER MINING COMPANY (LIMITED).

SIR.—The shares in this undertaking, after reaching some time since the high premium of 7*1/2*, have recently fallen to par, and even have found a few sellers at 4*1/2* discount. Not that the company's prospects are considered less brilliant than they were at this time last year: on the contrary, its property is more fully developed, both in respect to its valuable mines at Washoe and Humboldt and its magnificent mill, now in operation, and capable of crushing 40 tons of ore per diem. The cause of depreciation in the value of Washoe shares arises from the fact that the holders are tired of waiting for dividends, expected last year, while the more timid proprietors have been unnecessarily alarmed by reason of the unusually long silence of the manager at the mines, the directors not having received advice from him for nearly two months. Last week, however, the directors, very properly anxious to allay the alarm alluded to, and to give the shareholders every information respecting their property in their power, caused the following circular to be issued:

"The official letters from the mines having been by some means delayed in course of transit, the directors, feeling that a long period has elapsed since they placed themselves in communication with you, instruct me to circulate the subjoined extracts from private advices, lately to hand, and kindly sent to them for perusal.—JOHN A. ROBERTSON, Sec."

"Jan. 21.—It is certain the railway is coming through our property, and we shall have the depot here, and, as a consequence, property around us is rising fast, and many fortunes will be made here. The weather has been very severe, and seriously impeded our operations."—"Jan. 28: The weather continued until Monday to be very severe, the snow thick, and the running water in the canal froze 9 in. thick; this stopped all work. The weather then suddenly changed, and on Tuesday the mill started. We just had time to crush and amalgamate 2 tons of ore. Mr. Boyle was working on Tuesday night, and about 4 o'clock in the morning I continued the operation, and the first bar of bullion was soon out. I had to press the quicksilver out of the amalgam, and a large quantity was left. I retorted it, which took the whole day. On Thursday morning I took it off to Leopold Keek, at Virginia, as I have not yet got the means of testing bullion. Keek is the great authority in this country on the subject, and his certificate has been sent to me. He found it to be nearly all gold, and worth \$77, which would be \$26 to the ton of ore. The bar came from the Shakespeare Mine, and had been sent to the directors. The company will receive \$20 per ton for working the ore, and 40 tons can be worked in a day. At present the mine will yield about 10 tons a day, but we shall soon have 40 tons. The agreement is that the company are to work the mine, and to give the owners \$2 a ton for ore paying \$20, and \$3 for \$25 ore, and so on at a regular scale. The bar of gold and the manager's report went last Friday, so that you ought to know full particulars before this arrives."—"Feb. 3: I find, by the bungling of the postmaster, that the bar of gold has been delayed for some days, and, therefore, my letter must have arrived before it. The Shakespeare Mine is now being opened by six good miners, and the report to-day is first-rate. Ten tons of ore are now in a 'mill,' and will be worked on Monday, and a good body of ore is in sight. We expect soon to be getting enough ore to keep the mill running constantly night and day, which will take about 40 tons. We have been very busy finding a method of working the ore from the Whitmore Mine, in Humboldt; this ore contains a large quantity of arsenic, antimony, sulphur, and silver. Before this can be worked in the mill the base metals must be got rid of, which is a difficult process. We have succeeded on a small scale, and now we are going to apply it practically. Many people have been able about here to get 50 per cent. of the silver out of it, but we wait to get 40%. A great deal of our success depends on the weather: if fine, by next mail a bar worth \$3000 may be sent."

A WASHOE SHAREHOLDER, WHO DOES NOT PART WITH HIS SHARES.

PROSPECTS IN THE CHIVERTON AND GWENNAP DISTRICTS.

SIR.—I have studiously endeavoured to point out, for the guidance of the enterprising investor, what I consider to be legitimate speculations only, and as free from risk as this class of property can well be, in several of which it gives me satisfaction to state that my remarks have been fully borne out. Based on practical experience, combined with scientific researches, I have from the first starting of CHIVERTON MOOR formed a high opinion of its capabilities, being situated in the very centre of a hot bed of silvans, which form the great mineral channel of this rich district, having the same lodes as those now producing such wealth in the adjoining mines. West Chiverton, the courses of ore in which are, in fact, dipping towards it. It may not be out of place, perhaps, to remind my clients of the near approach to the lode in another deeper level, and to assure them that immediately on its being cut the value of the property will be greatly enhanced, so that the present is a highly favourable opportunity to purchase for a quick and great rise. Quietly and surely moving on towards a good paying mine also is NORTH CHIVERTON, which I am always pleased to have reference to, turning out all I have so often predicted in its favour. The new lode of which I spoke, long before it was cut in the cross-cut from the engine-shaft, as being one likely to turn out well, is producing 2 tons of blende per fm., besides large stones of copper and lead ore. A great thing in favour of the shareholders, also, is that it is being carried on vigorously, and at the same time economically. The engine-shaft has been forced on with all possible speed, and has already reached another level, where cross-cuts will be again extended south to meet with the lodes that are now turning out so well in the 40 ft., and from which regular sales of ore are being made. In the Gwennap district some of the mines I long since advocated are considerably improved within the last week or two. At NORTH GRAMBLEHILL a new lode has been met with in driving the 64 east; this end is extended further than any other level in this direction, and is now approaching a very interesting point, being between two other cross-courses which traverse some of the rich mines of this district. At NORTH TRESKERBURY, after a long "let," they have cleared the mine of the water which accumulated in consequence of the breakage, and again commenced to raise their usual two-monthly quantities of ore. The next step here ought to be to place it in the Dividend List, and I see no reason whatever why this should not be almost immediately done, in which case the mine will speak for itself. At TRESKEARAW the new engine-shaft is going in good ground, and in as fine a gossan lode as I ever saw—indeed, such indications I never knew

Meetings of Public Companies.

WHEAL TRELAWNY MINING COMPANY.

The quarterly meeting of shareholders was held at the offices, St. Helen's place, on Thursday, Mr. PAGE in the chair.

Mr. LAVINGTON (the secretary) read the notice convening the meeting, and the minutes of the last were approved.

A statement of accounts was submitted, which showed a profit upon the three months' operations (ending with the cost for Dec.) of 519L 14s. 9d. There was a balance in favour of the mine of 1866L 7s. 11d.

The report of the agents was read, as follows:—

March 20.—Smith's engine-shaft is down over 8 fms. below the 156, the sinking of which is suspended, in consequence of an influx of water, caused by the heavy falls of rain during the winter months; when the water is again abated, and thought practicable, the sinking will be resumed, and, no doubt, will not be retarded until it reaches the 210. The 196 is extended north of this shaft about 31 fms.; the last few fathoms has been through silty and disordered ground; however, we are pleased to say the lode is now better defined, with improved appearances; and in order to ventilate this level, and to lay open ground, we are sinking a winze about 10 fathoms in advance of this end, which is down 7 fathoms through a good-looking lode, full 3 feet wide, worth 47 per fathom for the whole distance. The 196, south of the same shaft, is extended about 20 fathoms; the last 10 fathoms is through tribute ground. We are also sinking a winze about 8 fathoms in advance of this end, for the purpose of ventilation, and laying open ground. We may as well mention that we have 40 fathoms more to drive to get under the ore ground gone down, where the lode was worth from 25L to 30L per fathom. The 182 is extended north of Chippendale's shaft 40 fathoms, and for the whole distance has opened out profitable tribute ground, and for the last 14 fathoms will average from 12L to 15L per fathom; the present end the same value. The 182, south of Smith's shaft, is within 18 fms. of the 162, north of Trelawny's; these two ends we shall drive by the side of the lode; our object for so doing is to effect a speedy communication, and it is our firm conviction that we shall open a long piece of ore ground. The 75, north of Chippendale's shaft, is in close proximity to the boundary, and, consequently, is suspended. We are now putting up a rise in the back of the 108, which is up 16 fathoms, with a view to prove this piece of high ground. We are also sinking a winze below the 142, south of Trelawny's shaft, which is down 4 fathoms in kilns, but not yet cut through the lode. In conclusion, we are sorry to say that our plights are not turning out to expectation; but looking at the ore ground laid open north of Chippendale's, with every appearance of continuance, encourage us to believe we have still a lasting mine. We sold, on Friday last, the 16th instant, 50 tons (computed) of silver-lead ore, to the trustees of the Treasury Estate, at 26L 15s. 6d. per ton, and we are in the way of dressing, and hope to sample—No. 1, 50 tons, and No. 2, 55 tons of ore, which will conclude our return for the next quarter.—W. JOHNS, T. GREENFIELD, J. PYTOR.

A dividend of 10s. per share was declared.

A vote of thanks to the Chairman terminated the proceedings.

GREAT WHEAL VOR UNITED MINING COMPANY.

The quarterly meeting of shareholders was held at the offices of the company, Gresham House, on Wednesday.

Mr. GEORGE NOAKES, F.G.S. (managing director), in the chair.

Mr. J. J. TRUMAN read the notice convening the meeting, and the minutes of the last were approved.

The CHAIRMAN commenced the proceedings by reading the report of the committee of management, as follows:—

The past three months have been characterised by such a depression in the price of tin ores as to cause great anxiety throughout the county of Cornwall. From the tendency of the tin market in December last, the committee had hoped to have obtained better prices for the produce of the mine than they were then receiving, and consequently had expected to have been enabled to present to the adventurers at this meeting a more favourable balance-sheet than usual, but the unexpected reduction of 8L per ton upon the quarter's sale of tin has seriously diminished the profits. The accumulated stocks of tin during the stagnant period of the American civil war, the increased shipments of it from the Indian Archipelago, and the enlarged development of the English tin mines, would appear to offer supplies beyond the immediate demand of the market, notwithstanding that the requirements for consumption have largely increased. It is to be hoped that as the Southern States of America become settled, and their domestic commerce expands, the surplus stocks may diminish and enhanced prices for our ores be obtained. It must, however, be a matter of congratulation that, amidst this general gloom, our mine looks well, and maintains its returns. The various points that were favourably reported upon at the last general meeting still yield largely. Since then some important improvements and discoveries have taken place in the development of the mine. The lode in the 194, west of Metal shaft, has become productive. The lode in the 184, east of Metal shaft, has greatly improved, and is now worth 100L per fm. The winze sinking below this level is on a lode worth 80L per fm. The 184 west is still largely productive, worth 70L per fm. Metal shaft is progressing favourably. The winze sinking below the 194 is on a good lode of tin. The lode in the winze sinking below the 174, west of Metal, is worth 50L per fm. A new feature occurred in sinking the winze below the 147, west of Metal shaft; in the course of sinking it dipped away south on a good lode, worth 30L per fm. The same lode has been intersected in driving the 152 south cross-cut towards it. Should the lode in driving east from the 152 south cross-cut be intersected, it will open out a large extent of entirely new tin ground; it is, in fact, a new lode, which Captain Julian conceived might, probably, exist south when it was determined to put out the cross-cut to prove it. The sinking of Ivey's shaft has been retarded by the work in preparation at the 147 and 174, for the purpose of putting in plugger-HM in the 157, flat-rods at the 147, new main-rods to the 170, and to the two 174 ends, in order to carry the water back from Metal shaft in this level. This important work, requiring the utmost care to prevent any stoppage of the mine, is now in a forward state of progress. Some delay also occurred in consequence of putting in a new H-piece. The heavy timbering required in the levels through which the slide had passed, the furnishing the requisite flat-rods, bobs, and connections, have materially increased the cost; but, when all this is fully completed, and in course of working, the engine will be relieved, and the operations of the mine greatly facilitated. The ground west of Ivey's shaft is productive. The lode in the 174 west is worth 15L per fm. The 164 is worth 70L per fm. In driving the cross-cut in the 100, west of Ivey's shaft, and west of the cross-course, a rich string of tin has been cut, and hopes were raised of an important discovery; but in driving upon it a short distance east it wore out. The men have, therefore, resumed the cross-cut north, with the hope to find the main lode. It is, however, encouraging that the ground has again become congenial for tin west of the cross-course. In the surface work the erection of the engine at Woolf's shaft, and the new axio on the south side of the steam-engine, has been retarded by the late incessant rains and inclement weather. These operations are, however, now progressing favourably, and will, it is hoped, be speedily brought into activity.

In conclusion, the committee, while expressing their satisfaction in the excellent prospects of the mine, can but express their regret that their present large returns should be made at a period when their market value is so much reduced; at the same time, they congratulate the adventurers that these immense returns continue to be made without diminishing the productive resources of the mine, and it is their firm belief that, as development extends, the mine will open out new courses of ore that will render it profitably productive for many years to come.

The CHAIRMAN then read the report of the agents, as follows:—

March 17.—We beg to hand you our report of this mine up to date. Metal engine-shaft is sunk 5 fms. below the 194 fm. level; the ground is favourable for sinking. In the 194 west the lode is about 1 foot wide, worth 25L per fathom. The winze sinking below this level is on a lode about 15 in. wide, worth 20L per fathom. The lode in the 194 east is small and poor, but from the underlie of the lode in the winze sinking below the 184 we think there is yet another part of the lode south; this winze being about 4 fathoms in advance of the end. The lode in the 184 east is about 2½ ft. wide, worth 100L per fathom. The winze sinking below the 184 east, referred to above, is on a lode 2 feet wide, worth 40L per fathom. The 184 west is driving on a lode and branches about 5 ft. wide, worth 85L per fm. The 174, west of Metal, is driven to meet the 174 east's shaft about 4 feet deeper than the 174, west from Metal, in order to bring back the Metal water through that level to Ivey's shaft; we have, therefore, to stop the bottom of this for several fathoms in length—say about 50 fathoms long, commencing from about 1 to 4 ft. deep, on a lode which proved in driving through for 70 fms. long worth 42L 10s. per fathom. No. 2 winze, sinking below this level, is on a lode 2 feet wide, worth 40L per fathom. No. 3 winze, sinking below this level, is on a lode 2 feet wide, worth 50L per fathom; all the stopees in this part of the mine are yielding their general average work. At Ivey's shaft we have been fixing a new plunger-lift, main-rods, and securing bad ground, occasioned by the slide having passed through the shaft below the 157, which has occupied considerable time, and required a quantity of timber; we have, therefore, been prevented from sinking the shaft below the 174 for the last month. We are glad to say, however, that by to-morrow morning the whole mine will be clear of water, and the shaft resumption sinking. We take the valuation of the shaft from our sampling-book, for the last three parcels returned from it, and find it to be worth full 50L per fathom; we have, however, beyond this a confidence that there is still more lode to the south, which will soon be proved. The 174 east is driven to meet the 174, west from Metal; the lode is 4 ft. wide, worth 40L per fathom. In the 174 west the lode is about 2 ft. wide, worth 15L per fathom; we expect a change in this end shortly, as we approach the dip of the tin ground against the slide. In the 162, west of Ivey's, there is a very wide lode, varying from 9 to 10 feet in width; we are carrying the end on the north part, which is worth 60L per fathom. The stopes on this part of the mine are much as they have been for several quarters past. We have driven the cross-cut north, in the 100 west, and have not yet succeeded in finding the lode west from the cross-course; we, think, however, the ground bears indications of some lode or branch being near at hand. The winze sinking on the lode proving to be underlying south, in the bottom of the 147, west of Metal, is on a lode about 2 ft. wide; it has contained good tin work throughout the sinking, averaging about 25L per fathom. We have a small lode in the 152 cross-cut, but we think the main part of the lode is still south. We are extremely sorry the price of tin has so much affected the market value of the mine; it is not occasioned through any falling off in the mine, as our present returns can be kept up. The reserves have been increased full 3000L for the last quarter. Woolf's engine-house is in fair progress. The new stamps-axes, and all their connections, are in progression, and the stamps-engine and stamps in good repair, with all the machinery in good working order.—THOMAS JULIAN, STEPHEN HARRIS, JOHN JAMES.

The CHAIRMAN said it had been his lot to address his fellow-shareholders during several years, under very varied circumstances. At one time the committee had to oppose a sort of wilful opposition and blind prejudice, but they had happily cut their way, as it were, through the screen, which opened a vista, with the brightest prospects, that had produced satisfactory results. (Hear, hear.) Upon the present occasion, however, he must confess that his feelings were so varied, so diversified, that if he were to depict them, they would somewhat resemble those of Garrick, when he stood between Triaged and Comedy—for if he looked on the one side at the gloom that pervaded the whole county of Cornwall, arising from the sad and unusual depression in the price of tin, he should draw a picture full of despair; but, as a miner, he was not inclined to dwell upon despair, for when at the lowest depths of any such commercial action, there was generally a hope that a re-action would set in, and he had no doubt that would be the case as regards the price of tin. (Hear, hear.) If, upon the other side, he looked at the mine, then he must say he was buoyant in spirits, as regards not only its present position, but also its future prospects. If he looked at the mine as a whole—at the amount of ground opened out, at the large and increasing reserves, and at the prospect of the ground not yet opened out—he could feel as he had felt for years past, that they would have a profitable mine for a very long period. (Hear, hear.) Even in the part of the mine opened out so successfully new discoveries

were being made; and in sinking the winze at the 147 it was found the lode underlaid south, and in driving a cross-cut towards that lode another lode was discovered, which, although at present poor, presented every prospect of improvement. And if they looked at the very bottom of the mine, where, it was true, there had been some little disappointment of late, owing to the lode not being so rich as in the 184. A winze was sinking below the 194, where a good lode of tin was met with, showing that there was still "live ground" under the present bottom of the mine. At Ivey's shaft a great deal of expenditure had been incurred in the pitwork, preparatory to taking the water back to the engine-shaft. During that necessary work the sinking of the shaft was suspended, but when suspended there was a good and improving lode in the bottom, worth 50L per fathom; and there was no doubt when beyond the influence of the "slide," that lode would gradually increase in value; and the other points opened justify the belief that there was a fine piece of ground in that direction. If the assays were accepted as evidence, they had reached "live ground," for in driving the cross-cut north at the 100 a small branch of the lode was met with, producing the finest samples of tin he ever saw. Hoping that it might be a lode, the branch was driven upon, but it wore out. It was hoped, however, that the lode would be found some 2 fms. further north. Those were points of hope and expectation, but of such hope, he thought, time would realise. As he had said upon previous occasions, when they held out hope and inducements, they should be at all times tempered—there should never be any exaggeration, nor should there be hid those points that were failing off. Their object had ever been to give the true state of the mine at the time, whatever it might be, and which they would continue to do. (Hear, hear.) He next came to the most important part of the day's proceedings. They had kept up, and he hoped they would continue to keep up, the monthly return of tin to 20L tons; and if the price of tin advanced it would not be difficult to increase that quantity, because it would bring in a large portion of ground which the present price would not pay for returning. If tin should rise to the price at which it stood at the beginning of last year, they could, and at once, largely and profitably increase their returns. He had already stated that they had continued to make the same monthly returns, but the shareholders must be prepared to hear that the amount those returns had realised was considerably less than hitherto. He then read the supplemental account, made up to the day of meeting: it was as follows:—

The audited cash account to Jan. 31 last showed a balance in hand of	£4157 7 9
Since which date there has been received—	
Tin sale, Feb. 13	3928 1 4
March 14	3864 12 4
Sundries sold, &c.	0 17 8 = £11,950 19 1
And paid—January cost	£2393 1 6
Sundries, postage, &c.	9 10 = 2,402 11 4
Balance (cash and bills).	£ 9,548 7 9

The actual account stands this day as follows, viz.:—

ASSETS.	
Balance as above	£ 9,548 7 9
Old materials sold, yet unpaid	42 12 6 = £ 9,591 0 3
LIABILITIES.	
February cost	£2283 2 0
Sundry accounts, salaries, &c.	392 5 9 = 2,675 7 9

Balance in favour this day

The CHAIRMAN continued: The balance at the last meeting, after paying all liabilities, was £9,591; but, upon the present occasion, it was nearly 2000L less. The whole, or nearly the whole, of that difference was caused by the fall in the price of tin; the decline between December and the present time amounting to 8L 7s. 6d. per ton. He need hardly say that was a circumstance over which they could have no possible control; but they were told by those well acquainted with the tin market that, looking at the large stocks on hand, it will, probably, be some little time before there will be any great amelioration; and that much depended upon the result of the sale at Amsterdam. To come back to the accounts, he might again state that the committee had always advocated the principle of holding a good round balance in hand, and that principle they wished to be carried out. There was, however, some little difference between the committee, which must be settled by the shareholders—the difference was whether the dividend should be 12s. 6d. or 13s. They had endeavoured to hold in hand a balance of not less than 3000L as surplus capital; but if a dividend of 13s. per share was now paid, the undivided balance would be only 2484L; but if the dividend were 12s. 6d., the balance left would amount to 3232L. With these remarks he left the question of dividend in the hands of the shareholders.

Mr. VANSITTART said that by adding the amount of the difference occasioned by the fall in the price of tin to the amount actually realised by the sales, it would be seen by comparison with previous sales there was no failing off in the actual produce of the mine.

Mr. J. T. HARVEY asked what proportion of the cost of the engine was included in the present accounts?

The CHAIRMAN said that 194L had been paid, and that there was about 196L more, which would be paid during the next three months. As far as the costs of the mine generally were concerned, they must increase as the development of the mine was extended, but that would be a productive outlay.

The audited accounts made up to Dec. 31 were passed, and the reports received and adopted. —Mr. J. T. HARVEY, upon the question of dividend, proposed that the amount should be 13s. 6d. per share, which would leave in hand something like the usual amount.

The CHAIRMAN said the question was left entirely with the shareholders.

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shares of £1. each, 5s. per share only to be payable unless and until the shareholders shall decide otherwise, and the first issue not to exceed 50,000 shares."

ECONOMIC LIFE ASSURANCE SOCIETY.

The annual general court was held at the society's offices, New Bridge-street, Blackfriars, on Saturday,

Mr. HENRY BARNETT, M.P., the Chairman, presided.

Mr. A. MACDONALD (the secretary) read the notice convening the court, and the statement of accounts for the year ending December, 1865, as follows:—

GENERAL ACCOUNT.		
Received—	Assurance premiums	£212,586 15 1
	Less Commission	7,327 14 11 = £205,259 0 2
Interest on investments	93,522 1 8	
	Less income tax	2,087 8 1 = 91,464 13 7
Total	£296,723 13 9	
Paid—	Assurance claims	£203,427 10 0
Annuity claims	2,075 10 0	
Policies purchased	7,982 13 6	
Re-assurance premiums	324 16 4	
Office expenses	10,091 10 5	
Law charges	483 18 2	
Medical fees	281 18 6	
Balance carried to investments	72,055 16 10	
Total	£296,723 13 9	
ASSURANCE FUND.		
Dr.—	Balance, Jan. 1, 1865, consisting of—	
Funded property	£ 501,818 9 2	
Loans on policies	104,669 3 0	
Mortgages	1,551,581 0 10	
Life interests	52,050 14 4	
Reversions	73,716 12 7	
Cash on hand	7,176 9 3 = £2,291,012 9 2	
Profit on reversions fallen in, &c.	7,861 3 8	
Balance from general account	72,055 16 10	
Total	£2,370,929 9 8	
Cr.—Terminable annuities	£ 897 10 0	
Balance, Dec. 30, 1865, consisting of—		
Funded property	£ 452,106 8 2	
Loans on policies	110,778 10 0	
Mortgages	1,570,857 17 1	
Life interests	68,299 4 4	
Reversions	117,259 14 5	
Norwich Union Rev. I. Co., on account	20,000 0 0	
Cash on hand and on deposit	31,502 5 8 = 2,370,031 19 8	
Total	£2,370,929 9 8	
STATEMENT FOR THE YEAR 1865.		
Number of proposals received	553	
Policies issued	466	
Proposals declined	45	
Not completed	42	
Number of policies in force at end of year	9261	
Amounts assured thereon	£7,554,932	
Absolute bonus	776,955	
Total Liabilities	8,331,887	
Sums assured by new policies	479,390	
Amount of new premiums	15,154	
Total premium revenue	218,482	
Invested capital	2,370,031 19 8	
STATEMENT OF CLAIMS ACCRUED.		
On 270 policies assuring 210 lives in the sum of 275,210 <i>l.</i> , including bonus.		
Out of 270 policies determined by death, 150 assuring, 125,466 <i>l.</i> carried 52,680 <i>l.</i> bonus.		

The CHAIRMAN said, before proceeding to remark upon the report, he had to express the regret of the board that there had been a change in the number of directors since the last meeting—their late colleague, Mr. Barber, had been taken away from the office by death after a very short illness. Having been accustomed to see him present at these meetings for so many years, the members could judge that Mr. Barber was very conversant with the business of the office, and that his colleagues greatly feel his loss. The directors elected in his stead Mr. Charles Arthur Barclay, whose name to all connected with commercial circles was well known, and whose father was formerly a valuable member of the board, and himself and family had long been heavily insured in the office. He (the Chairman) could assure the meeting that the directors would not have selected him to join the board had they not felt quite satisfied he was qualified to promote the interest of the society. (Hear, hear.) As regards the operations of the society during the past year they had been of a varied character—there were some features connected with the accounts that, on the first appearance, might look a little unsatisfactory, but he could assure the meeting that, having considered the state of the business, the directors had every reason to be satisfied it was progressing in a satisfactory manner. (Hear, hear.) There were some instances to which he would draw attention that would account in some measure for the satisfaction the directors felt. The number of proposals received during 1865 was 553 against 597 in 1864, and the policies issued were 466 against 493. Those figures appeared to show rather a decline than otherwise in the business of the society; but there was the satisfaction of knowing that the quality of the policies was better, although the number was smaller. The amount assured by those 553 policies in 1865 was 479,000*l.*, whereas upon the larger number in 1864 the amount was only 438,000*l.* That, he thought all would admit, showed a more satisfactory state of things. (Hear, hear.) The total amount insured last year was 95,000*l.* more than the average of the preceding five years, while the quality of the policies—that is, the amount insured—was of a higher class; or, in other words, the average amount of the policies issued was 102*l.* in 1865, against 81*l.* in 1864. (Hear, hear.) It was the larger policies that produced most profit to the office—the expense of issuing a policy with a small amount being as great as that of one of a large amount, while the proportion of profit to be derived from the amount of premium which did not represent the absolute risk upon the life was in favour of the office. The total premium in 1865 was 35,000*l.* more than in 1864, and the amount of new premiums in 1865 was 15,154*l.*, against 13,085*l.* in 1864. (Hear, hear.) Some two or three years since the directors obtained the permission of the court to issue policies of a larger amount than 5000*l.*; since then a certain number had been issued, and during the last year there had been no less than six for more than 5000*l.*, and 18 for the full amount of the former limit. By contrasting the amount paid in claims in 1865 with that during 1864, there was nothing whatever to be alarmed at, but the amount that had accrued was considerably larger. As, however, those were things that ran on from year to year, it could only be said what had been paid, or what they had become actually liable to pay. The claims appeared to amount to nearly 50,000*l.* more than by calculation they might fairly have expected, the cause of which had been strictly investigated, but it had not been accounted for in any satisfactory manner. The only way to look at such things was, that they were matters of average, spreading over a certain number of years, during which he had frequently called attention to the claims falling considerably short of the estimated amount, although in 1865 they had been very much in excess. There seemed reason to believe that in the flowing tide they had happened to light upon a very large wave, but there was no reason to suppose it would not be compensated for in future years. Of course, by paying out this large amount they were diminishing the liabilities of the society, and he had no doubt it would right itself in due time. The average amount of claims, with bonus, oddly enough, agreed with the average amount upon the policies issued—in fact, almost within 1*l.* As regards the duration of life upon which the claims had fallen, it had been rather shorter than what had been their experience in former years, the average having fallen from 60 years to 58*1/2*. But there were no clouds without sunshine, and to persons looking to see what might be coming in addition to their policies it would be a satisfactory feature to announce that during the year two policies of 100*l.* had been fallen in, upon which the bonus amounted to 114*l.* 2*s.* per cent., which must be satisfactory to the holders of those policies. As regards the assets and income, he might mention that the gross income was rather larger than what was shown in the balance-sheet, because there were certain things coming in which were accruing in the office. The total amount was 162,690*l.*, which was 6000*l.* or 7000*l.* more than in former balance-sheets—that was owing to interest accruing upon interest and other sources out of observation. The apparent income in 1865 was 35,000*l.* more than in 1864, but that had arisen from there having been made a large investment of their funds in reversions—a class of security which was not open to everybody, but which was very suitable to an office of this kind. They had been lucky enough to make some profit by some of the reversions falling in earlier than might have been expected; but such an investment was a strict calculation, and there was no doubt it would come out in the way estimated. (Hear, hear.) The directors had looked most steadily as to the best means of increasing the rate of interest on investment, and as it seemed not unlikely that the ordinary rate of interest in the money market might generally rule higher than in former years, he hoped the society would realise a benefit from it. All he, in conclusion, could say was that, upon the whole, the directors were quite satisfied with the progress that had been made during the last year, although there were circumstances which superficially looked unfavourable. The directors felt confident that the economic was continuing in that path of prosperity which it had pursued for a great many years. (Hear, hear.) He moved that the accounts be received and adopted. —Mr. G. K. RICKARDS seconded the proposition.

Another POLICYHOLDER urged the desirability of more insurers attending the meetings, as it could not fail to benefit the society by becoming more widely known how prosperously it was going on, and what unprecedented advantage it offered to insurers. —The CHAIRMAN said that the directors were very desirous to see as many present as possible, but they could only send to such persons whose addresses were known at the office.

Another POLICYHOLDER said he had attended the meetings for some years, and he was always surprised that increased publicity was not given to the advantages the Economic Society offers. —The motion was then put, and carried unanimously.

Upon the proposition of Mr. OXONIAN, seconded by Mr. TURNER, a unanimous vote of thanks was passed to the Chairman and directors. —The CHAIRMAN thanked the meeting on behalf of himself and colleagues for the compliment just passed. All he could say was that it would continue to be their greatest desire to exercise all the influence they possessed to prowl the objects of the society, and to make known the advantages it offered to insurers. (Hear, hear.) —The meeting then separated.

MINING IN AUSTRALIA.—The following reports reached us too late to be included in our Australian News in last week's Journal:—

KAFUNDA.—The quantity of ore raised in November was 173 tons, tons of 19*1/2* per cent. Average produce equal to 36 tons of pure copper. The quantity raised in Dec. was estimated at 200 tons. Since last advices 28 tons copper had been shipped.

FORTUNE COPPER (Western Australia).—Capt. Penberthy (Dec. 29) reports: The 50 fm. level north-east end driving by two men; lode 3 ft. wide, producing spar and copper. The 50 fm. level north-east end working by two men; lode 3 feet wide, producing 2*1/2* tons copper ore per fm. The 50 fm. level south-west end driving by four men, producing staves of lead and copperware throughout. The 50 fm. level south-west end working by two men; lode 2 ft. wide, producing 2 tons of copper ore per fm. No. 1 stopes in the back of the 30 fm. level south-west end is working by four men; lode 3 ft. wide, producing 2*1/2* tons of lead and 1 ton of copper ore per fathom. Samson's whim-shaft is sinking by six men. In ten weeks we expect to communicate this point with the 30 fm. level north-east end; we shall then be able to command an extensive piece of ore ground, and consequently in a position to increase our monthly samplings considerably. The 12 fm. level south-west is driving by four men at 5*1/2*.

TRUTH'S ECHOES, OR SAYINGS AND DOINGS IN MINING.

The Mining Share Market continues inactive, and the business done during the week appears to have been chiefly confined to jobbing among the dealers in the market. There is evidently an unprecedented absence of speculation or investment with the mining public, which may be attributed to the decline in the price of tin and copper, and although the latter has fallen this week 5*1/2* per cent., the standard advanced on Thursday about 20*1/2*, which may be accounted for by the smallness of the monthly sales of ore from Devon Consols, East Caradon, Marke Valley, and other mines, in consequence of the late unfortunate strike among the miners. But as the men have nearly all returned to their work, there is no doubt that a better state of things will prevail, and the next monthly sales will, probably, make up for the large deficiency of last month.

WHEAL SETON and WEST SETON are inactive, and no business transactions reported.

CLIFFORDS are also heavy, and more freely offered.—WEST CHIVERTON have been in fair demand at improved prices, but some slight fluctuations have followed.—CHIVERTON MOONS have shared freely in the transactions of the week, at improved rates, but left off slightly weaker.—CHIVERTON continue heavy at present quotations.—WHEAL BASSERS have been enquired for at improved rates.—EAST BASSERS have been freely dealt in, and rather more in request.—TINCROFTS have declined, and not in request.—EAST CARN BREAS have been enquired for at buyers' prices.—GREAT LAXEY rates are more tempting than ever, and those who purchase shares at their present price will find themselves fortunate. At WEST CHIVERTON, in the 100 cross-cut it is yet before long I shall have something very good to say about it. At CENTRAL SNAILBEACH and GREAT SOUTH CHIVERTON they are steadily approaching the lodes, and nothing has occurred at either mine to lower the expectations that have been entertained of its great value. From the dividend mines the reports are also satisfactory.

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the lode is cut into 3*1/2* ft., and looks extremely well. The large quantity of water makes it difficult to get through the lode, but it induces them to believe that the main part of it is yet before long. The 80 west has improved, and is now worth 6*1/2* per fathom for load. The 90, also, looks well. The shares in all these mines are well worth buying at present prices, and the same may be said of Herdscroft, Providence, Trelyon, Ding Dong, East Laxey, East Snuffell, Snaswell, and North Treskerby.

From Mr. J. HUME.—It is gratifying to learn that the Miners' Strike has terminated, so far at least as regards the Liskeard district, and it would be well for the mining interests of Cornwall if the effects of the combination could be erased from the memory. The last two years of depression have surely felt by the adventurers (who have been severely tried to meet calls to keep most of the mines going) to a much greater extent than by the miner, whose anxiety is comparatively trifling, and whose labour is his capital. This week the standard for copper has advanced one, and it is said the sale of Banca tin has gone off very satisfactorily, which encourages a hope that a rise in both metals is not far distant; if so, shares in most tin mines being exceedingly low, a great demand for such investments would follow. During the week extensive dealings have taken place in CHIVERTON MOONS at 6*1/2* to 7*1/2*. GREAT NORTH LAXEY rose to 2*1/2*, 2*1/2*, but did not long maintain the rise, many holders preferring to realise at such prices; the latest price may be called 2*1/2*, 2*1/2*. CHONTALES (Gold) have been largely dealt in, in the accounts by the inst mail before the most factory character. Regular remittances of gold are promised by the April and future mails.—THE ZACATECAS SILVER MINING COMPANY (Limited): Prospectus of this company will shortly be before the public. The mines are situated near Sonora, Mexico, and consist of five lodes of extraordinary richness, one of them said to yield 100 to 3000 ozs. of silver to the ton of ore, whilst another has yielded in one year the fabulously sum of 800,000*l.* sterling; and it is estimated by Capt. Paul, the manager of the Chontales Mines, that when the Zacatecas mines are drained and got into working order the yield per annum will be upwards of 300,000*l.* The statement in the proof prospectus being so well founded for, it is no wonder that one-fourth of the entire number of shares is already subscribed for, and it is not improbable that they may be entirely absorbed before the particulars are put into a sufficiently official shape for public circulation through the advertising mediums. It is quite certain that the sooner applications are sent in the more chance there will be of securing an allotment. The quotation is already $\frac{1}{2}$ to $\frac{1}{2}$ prem.

From Mr. J. B. REYNOLDS.—The markets have been inactive, and a decline has taken place in many descriptions of stock. This state of affairs, no doubt, is being taken advantage of by prudent speculators and investors, who are quietly "picking up" those shares which appear to be desirable, well knowing that a reaction will set in of a character which will amply repay them. At the present moment I most candidly assert that mines—British mines—offer the greatest possible advantages to capitalists, considering the very low price to which they have gradually fallen. I called attention last week to the WEST SHARF TOR MINE, and I am pleased that my remarks have been appreciated. That these shares are dirt cheap, and that the property is of first-class order, no one denies. The mine is well known, and so are its very able and respectable managers.—STRAT PARK: I ventured to predict that if anyone made a purchase here, at present prices, they would make a profit of 200 per cent, at least, in the amount invested before twelve months passed away. There are special reasons why these shares should be bought at once.—DALE MINE (Limited): It is stated that there is an improvement here in two places. The improvement in one part is said to have assumed a very important character.—SOUTH CALLINGTON: I continue to advise the purchase of these shares, and I am happy on the market—there may be a little difficulty in getting them. The improvement is gratifying.—CUDRA MINE: I am happy to say that the prospects appear to be of a very reassuring character. Attention must be drawn from the financial companies to other securities of a higher order. The sudden fall in the Marseilles Land Company (Limited) must surely open the eyes of the public. I am happy to say that the hints I have dropped have kept everyone from buying who has been approached.

From Mr. THOS. SPARGO:—Since my last letter various circumstances have occurred more or less calculated to produce an effect upon the mining interest, and to alter the value of shares, but the estimate which may be formed of the entire influence of these occurrences confirms the opinions expressed in my last that no time could be chosen more judiciously than the present for investment, especially in good progressive mines. At the present juncture prices in the share market are low. Dividend-paying mining stock can be had at a price which cannot fail to be ultimately very profitable to investors. There are, no doubt, agencies at work in our own empire, and beyond its bounds in both hemispheres, which will cause prices of shares in mining companies to run up to a degree of which the general public have no conception. Such may be the case very soon, but, sooner or later, it is sure to come at no remote period; and, when it does, the transition will be accomplished with great rapidity. On all previous occasions of protracted depression, certain symptoms of approaching revival appeared in such a way as to show that they were the signs of certain laws operating upon the general progress of society and of business, but sufficiently latent as not to attract general attention to their incipient action. These indications are now beginning to appear to be clear-sighted and far-sighted men connected with the great branch of production and commerce to the interests of which your journal is devoted. It is unnecessary to go into their details; they are recognised by all skillful professional men. It, then, a rise of prices suddenly occurs, there are good grounds for believing that it will not be with rapidity, so that in a short time the market value of shares will rise very high, disappointing that class of investors who wait until the market begins to move, and then try to secure properties at low figures, which have any likelihood of advancing. At all events, the period is promising for all capitalists who desire to embark in progressive mines, the character of which has been well attested by reputable and competent persons. The rate of discount is falling all over Europe, and even in the United States, favouring the enterprise of investors, and making it easier for them to find employment for their money in those progressive undertakings, which often prove sources of fortune, and seldom fail to repay their adventurous but prudent and intelligent supporters. For a very long period money has not been so plentiful, and, consequently, so cheap, upon the continent of Europe as at the close of the present week. In Paris, Hamburg, Frankfurt, Amsterdam, &c., the rate of interest is so low that a great impetus must be given to speculation, perhaps illegitimate as well as legitimate, and prices will run up as a necessary consequence. The stock of metals in Europe is small, except that Holland has unusual stores of Straits India, and Australia, which would draw off a considerable portion of the supply. Many persons are discouraged by the sudden fall in the price of copper—and not only a sudden but a heavy fall—but it should be remembered that the previous price was excessive, on the basis of the breaking out of hostilities between Spain and Chile the cost of copper suddenly rose in an unprecedented manner, and to an unprecedented degree. There is, therefore, no reasonable ground for depression, if, after an unlooked-for and unnatural augmentation in value, the cost should descend more nearly to its normal state. The failure of the Joint-stock Discount Company is a source of depression, bringing down the value of shares in all the finance companies; but we can all the more strongly, from these circumstances, advance the claims of mining to public patronage. We have often asserted in our reports in the Journal the fact that in the long run no investments were safe, or more remunerative, than those in mines. We have pointed out mining properties which made returns upon capital utterly beyond those which have been realised by any other undertaking whatever. We have no hesitation in adding that numerous as are the public companies which have been formed during the last three years, and successful as many of them have been, so large a proportion of them does not remunerate the shareholders as do mining undertakings. The Times has done much to create depression in the share market by decrying home enterprises which are at all of a speculative character, the object being to give indirect support to foreign Government loans, and other foreign monetary transactions, as these are the enterprises in which its partners mainly engage. We are certain that a comparison between loans to foreign nations and mining will convince any sensible and impartial man that the latter is in every way the better medium of investment. Recently the Times contributed to depress the markets by announcing that it was the prevalent belief in New York that the United States must be bankrupt before Midsummer. No such opinion prevails there, and no such prospects exist. The trade of the United States, internal and external, was never on a sounder basis, and this is especially the case with England. We have received information from original sources which convinces us that the Southern people are bravely setting to work, that large numbers of the negroes have made contracts, and are industriously observing them, and that white men as artisans and labourers are in great demand

ward of \$60, "to any man who will bring forward and prove one single case of the kind referred to" in any mine in which any of them are concerned.

A meeting of miners was held in Caradon Down, on Wednesday, and after some discussion it was decided that the men should quietly yield to the employers, and take their different bargains. The men employed in South Caradon and Gwango Caradon Mines have given up all connection with the Miners' Benefit Society, and returned to their work.

FOREIGN MINES.

ST. JOHN DEL REY.—The gold return for January (after deducting the loss in melting) was 16,824 oits., worth at 7s. 9d. per oit., 18,144*s.* & d., and the cost, at 2s. 1*1*/₂ d. per ounce, was 10,656*s.* 4*d.*, leaving a net profit on the month's working of 748*s.* 1*d.*

DON PEDRO NORTH DEL REY GOLD.—Capt. T. Treloar reports.—The gold return for January amounts to 1932 oits., and it has been derived as follows:—Maguel, 1081 oitavas; Morro de St. Anna, 812 oitavas. The operations generally have progressed satisfactorily. The weather has favoured us, and a good deal of work has been done. Our force is good. Timber, I am glad to say, is coming in fair quantities, and some wood has been purchased.

ANGLO-BRAZILIAN GOLD.—Capt. T. Treloar reports that.—The produce for the month amounts to 1129 oitavas. The stone treated at Fenando's has not been so auriferous as it was in last month, the lode encountered in sinking the shafts being of an inferior description (as had before occurred), and that sent up from the rise was not so good; an improvement in the tonnage has taken place in the yield of that from the Buraco Seco. It is with great satisfaction I am enabled to announce that we have communicated to the old workings from rise of deep adit, and let down a large quantity of water. The lodes now in sight are large, and from their appearance should yield well.

TASSO BRAZILIAN GOLD.—Mr. Pearson Morrison, the surveyor appointed to verify the reports of Messrs. Reay and Andrews, as provided in the Articles of Association, embarked at Southampton for Pernambuco on the 9th inst. Mr. Morrison is accompanied by Mr. Ezekiel Williamson, as assistant and assayer, with a competent staff of miners, and is provided with every requisite for the purpose of proving the lodes, and making an effectual survey of the property, previous to the purchase being completed. They may be expected to arrive at the mines about the end of April.

CHONTALES GOLD AND SILVER.—W. C. Paul, Jan. 29: **Consulo Mine:** During the past month we have been grinding the "old burrows," which yield from 2 to 5 ozs. per ton. The "cups" have been scraped once, and 260 ozs. of amalgam obtained, which will produce about 90 ozs. of refined gold. The water is now fast diminishing, and will not admit of grinding for more than a few days, and which I wish to avail myself of, instead of washing up, which occupies two days to get in order again. One of the mills will have sufficient water for some time longer, and will be kept going constantly. One Cornishman and three natives are now employed clearing the adit level, which has run together in several places. In spilling one of the runs yesterday, on the course of the lode, they got into first-rate ore, of which there appears to be a large quantity fallen from the back of the level, and which I judge to be worth about 15 ozs. per ton. This ore is now being ground in the mills, and if we can keep on grinding, may enable us to remit next month to England; but this cannot be depended on, as water-power may almost or entirely cease.—**San Antonio Mine:** Here we have 25 men engaged raising ore and carrying it to the mill. Owing to the distance the ore has to be carried on men's backs, they can just manage to keep on mill-grinding about 3 tons per day. The general average of the ore is about 2 ozs. per ton, and the water is in great abundance. In one part of the mine in the bottom level there is a "nail" or "thread" in the lode, which produces about 15 ozs. per ton, and I am inclined to believe that in greater depth it will be found a vast deal richer, as it is improving in sinking. This cannot be proved to a much greater depth till we can drive an adit cross-cut from Santo Domingo, which will thoroughly prove all the lodes in that part of the company's property. In the meantime, there is an abundance of stuff near the surface which will pay from 1 to 2 ozs. per ton, and with which the mill will be kept grinding. At Santo Domingo Mine nothing has been done up to this time for want of men. I expect when I last wrote you to have put one mill at work here during the past month, but could not possibly do so; nor can I now see how I can do so for next month, for the same reason—want of men; but, nevertheless, I will if possible.—**Cabezas Mine:** Here I have three natives sinking a shaft on the course of the lode, in complicity with the mining laws of the country—to keep possession good; and I am glad to say the lode has greatly improved. That which I reported last year as being worth 2 ozs. per ton is now worth at least 5 ozs., and is a very fine, splendid-looking lode; in fact, I believe this part of the property will eventually be found as productive as any, except Consuelo, and should by all means be put into full working order next year. I have received the drawings of machinery sent, as also an invoice of the weights of each heavy article, and beg to say there will not be the slightest difficulty in bringing them to this place when the road is completed. The machinery sent is such as we require, and will as soon as possible be put in full working order.

LINARES.—March 10: **West of Engine-shaft—South Lode:** We have commenced driving the 120, east and west of engine-shaft; the lode, which is 5 ft. wide, is composed of calcareous spar, carbonate of lime, and lead ore, worth for the latter 2 tons per fathom, presenting a very kindly and productive appearance. The lode in the 120, west of 143 winze, is very large, and spotted throughout with lead. In the 75, west of Warne's engine-shaft, the lode is large and strong, composed of calcareous spar, carbonate of lime, and lead ore, worth for the latter 1*1*/₂ tons per fathom. The 75, east of the same shaft, has passed through the unsettled ground referred to in our last report, and it is now opening tribute ground, worth 1 ton per fathom. The lode in the 61, west of Crosby's shaft, is very large and strong, with a branch of lead on the north wall worth 1 ton per fathom. The 61, west of the same shaft, is very regular, but does not improve in value.—**East of Engine-shaft:** There is an improvement in the 110, east of the engine-shaft. The 95, east of Padilla's winze, is worth 1 ton per fathom. In the 85, east of Field's shaft, the lode is still in a very unsettled state.—**North Lode:** The lode in the 85, east of Field's shaft, is large and strong, yielding a little lead, but not to value.—**Shafts and Winzes:** The ground in Crosby's shaft is improving, and satisfactory progress is being made in sinking. Thorne's shaft is improving, and being in advance of the 95 east we attach great importance to it; the lode is now worth 1*1*/₂ tons per fathom. Cabra's winze is down the required depth for the 85.

ALAMILLOS.—March 10: **The 4th level, east of San Rafael shaft,** is opening good tribute ground, worth 1*1*/₂ ton per fathom. The 4th level, west of the same shaft, has a kindly appearance, and letting out water freely. The 4th cross-cut south is hard for driving. The 2nd level, west of San Francisco shaft, is unproductive. The 2nd level, east of San Enrique shaft, is improving, though the ground is unusually hard. The lode in the 2nd level, east of La Magdalena shaft, fluctuates considerably, but, on the whole, it is opening a valuable piece of ground, worth 2 tons per fathom. The 3rd level, east of La Magdalena shaft, is started from the cross-cut in a splendid lode, worth 6 tons per fm., and the 3rd level, west of same shaft, is also worth 6 tons per fathom. The lode in the 3rd level, east of Taylor's, is disarranged, having passed through a run of soft ground, now worth 1 ton per fm. The 3rd level, west of Taylor's, continues to open good ground, worth 1*1*/₂ ton per fm. The ground being so hard in the 3rd level, east of San Adrián shaft, we have not holed, as we expected to have done. The 2nd level, east of Crosby's shaft, is worth 1 ton per fm. The 2nd level cross-cut south is hard, wet, and troublesome for driving.—**Shafts and Winzes:** The ground in Taylor's engine-shaft is much easier for sinking, and the lode is improving. The lode in Gonzalo's winze is wide and strong, but at present it is unproductive. The lode in Armigio's winze is small, and the ground hard.

FORTUNA.—March 10: **Canada Incosa—West of Taylor's engine-shaft:** There has not much been done to the 110, east and west of El Clavel sump-winze, in consequence of repeated hindrances, resulting from breakages to the rods and pitwork. The lode, so far as seen, is poor. The lode in the 100, west of O'Shea's shaft, is small, and the ground had for driving. In the 90, west of Henry's shaft, the lode is not so productive, worth 1 ton per fathom. The 80, west of same shaft, is opening good tribute ground, worth 1*1*/₂ ton per fathom.—**East of Engine-shaft:** The lode in the 70, west of Kennedy's shaft, is large and strong, and contains good stones of lead. We shortly expect an improvement in the 70, east of Carro's winze. The 55, east of the same shaft, is opening a valuable piece of ground, worth 1*1*/₂ ton per fathom. The 45, east of the same shaft, is hard for driving; lode of a kindly and productive appearance, worth 1 ton per fathom.—**Shafts and Winzes:** Good progress is being made in San Tomas shaft. Mateo's winze is unproductive. Baldonado's winze is deep enough for a 5 fm. level, and will be holed by the end striking through it. We have resumed the sinking of Fulgencio's winze, which is situated in advance of the 70.—**South Lode:** The 30, east of San Pedro shaft, is ch'dly composed of quartz, spotted with lead. The 30, west of same shaft, has a kindly appearance, and is opening moderately productive ground. The 30, west of San Federico shaft, is also opening fairly productive ground. The very heavy rains of the past week have caused an increase of water in San Pedro shaft. Tejada's winze is completed to the 40, and the men put to drive east and west from the same; the lode looks very kindly.—**Los Salidos Mine:** The lode in the 90, west of engine-shaft, is compact and firm, and worth 2 tons per fathom; we fully expect to open a long run of good ground in this direction. The 75, west of Buenos Amigos shaft, has been unsettled; it is now improving, and has kindly appearance. There are good stones of ore in the 65, west of same shaft, but it has not improved sufficient to be valued. The 55, west of San Carlos shaft, is hard for driving.—**East of Engine-shaft:** The lode in the 90, east of the above shaft, is very changeable, and at present it is rather small, and the water has for driving. The lode in the 100, west of O'Shea's shaft, is small, and the ground had for driving. In the 90, west of Henry's shaft, the lode is not so productive, worth 1 ton per fathom. The 80, east of same shaft, is opening good tribute ground, worth 2 tons per fathom. The 70, east of Carro's shaft, is worth 2*1*/₂ tons per fathom. Tejada's winze is poor, and wet for sinking.—**General Remarks:** In the tribute department there is no alteration requiring particular notice. The pitches continue to yield a fair quantity of ore. The machinery and surface work generally are going on regularly. We estimate the raisings for March at about 500 tons.

CENTRAL AMERICAN.—Jan. 31: **San Pantaleon Mine:** In the Guadalupe, and 10 fm. level, under the deep adit, driving east of No. 2 cross-course, the lode is 1*1*/₂ ft. wide, composed of soft porphyry, a little calcareous, and spots of ore. The cross-cut north at this level has been driven 11 varas, and not having intersected any lode or branch, is discontinued. In San Alfonso level (deep adit), driving east of No. 2 cross-course, the lode is 2 ft. wide, composed of flocan, quartz, and a little silver ore, worth 6 cwt. per fathom. The driving on the north branch in San Felipe level has been discontinued, and the man removed to the Guadalupe level, to prepare for sinking No. 2 vertical winze under that level, in order to prove further the small but rich branch of ore gone down. The ends of the Guadalupe and San Alfonso levels having a somewhat improved appearance, they will be vigorously continued, in the hope of a further improvement. The slopes, east and west of Lemus's winze, are yielding from 3 to 4 cwt. of silver ore, of low quality, per varas, and east and west of Sosa's winze about 3 cwt. per varas. The raisings for January have been 6 tons 10 cwt., averaging 4*1*/₂ cwt. of silver per ton of ore, equivalent to 29*1*/₂ tons of silver. It is expected that this quantity will be exceeded in February by 2 or 3 tons. The machinery and surface works are reported in good working order.—**San Carlos Mine:** The lode in La Esperanza deep adit level, driving east of the cross-cut, is 1*1*/₂ ft. wide, composed of a very pretty gossan and flocan, and in the last day or two a small branch of rich ore has been cut in the bottom of the level; this end is expected to be immediately communicated with the end driven west from Mateo's winze, when a winze would be set to sink below the level, to prove its continuance downwards, and the driving of the level, east of Mateo's winze, resumed, where the lode is of a most promising appearance, and just under the rich bunch of ore in Mateo's winze. The lode in San Rafael adit level east, on Carrera's lode, is 3 ft. wide, composed of a soft porphyry, with a little oxide of iron; this end is now stopped, as, from the slope of the hill, it is getting shallower; the men are put to open a level west to meet the Esperanza level, 9 to 10 fathoms deeper, the lode being found of a much more productive nature in this level than it has hitherto been. The lode the slopes above San Rafael adit level is worth 6 cwt. of silver ore of fair quality per varas, or 30 cwt. per fathom. The western part of the slopes has somewhat fallen off in quantity in the past month, while the eastern part has improved. The

slope, east of Buzzo's winze, under San Rafael adit level, is worth 20 cwt. per fathom. It is purposed at once to commence a cross-cut from the gully, east of the present workings, and by driving south to cut Carrera's lode 20 fms. deeper than La Esperanza adit. Captain Butler adds that he is happy to remark that on the whole, the mine of San Carlos is looking better than he had hitherto seen it, and that he hoped soon to be able to increase the returns. Mr. Henry Trehearne, the present superintendent, who arrived at the mine on Jan. 23, says of San Carlos that the lode has a most encouraging appearance, and that the company possessed, in his opinion, a valuable piece of ground in this property. The raisings of ore from San Carlos in January have been 28 tons, of the average yield of 8*1*/₂ cwt. of silver per ton of ore, equivalent to 2*1*/₂ tons of silver. **Autiles Mine:** This mine has been purchased for \$400, and small works commenced by re-timbering the deep adit level, and by sinking Portillo's winze below the shallow adit, as well as by opening on a lode, supposed to be the counter lode seen in an old pit opposite the mouth of the adit; it is 1*1*/₂ ft. wide, composed of flocan, porphyry, and gossan, of a wood-like looking nature. The lode in Portillo's winze is 2*1*/₂ ft. wide, composed of flocan, calcareous, and soft porphyry, with small particles of ore running through the porphyry and lode generally, but not of sufficient quantity to value. It is hoped that returns will soon be made from this mine, but none can be expected for February. The total raisings from San Pantaleon and San Carlos have been for January 34 tons 10 cwt., averaging 7*1*/₂ cwt. of silver per ton of ore, equivalent to 2*1*/₂ tons of silver. The estimated raisings for Feb. are from San Pantaleon Mine 8 tons, San Carlos 30 tons; together 38 tons. **Hacienda de San José:** 12 bars of silver, of the estimated value of \$9750*s.*, forming the 29th conducta, were forwarded on Feb. 2, under a suitable escort, to Guatemala, and at the end of March it was expected that another conducta of 10 or 12 bars would be ready, when its proceeds would be required for the expenses of the mines. Out of the amount of which the 28th conducta was robbed on the 19th of December—\$8908 or 16*1*/₂ tons of silver, has been recovered, and although some hopes are entertained of recovering a further portion, such a result is not confidently entertained. Mr. Henry Trehearne, the new superintendent of the company, arrived at Atopeque on Dec. 23, and entered forthwith on the duties of his office. He considers the company's prospects to be of a very encouraging character, and hopes, in the course of a month or two, to be able to inform the directors that the returns of ore have considerably increased.

ALTEN AND QUENANGEN.—Feb. 27: **Quenangen:** The lode to the north-west is showing signs of improvement, and we have again met the ore in the bottom of the shaft, but at present we cannot expect an increase in the monthly returns until the lode is more wrought on.—**Raias:** The branch of ore alluded to in my last as having been discovered in the 30, near Monk's shaft, is of some promise; the lode is 1*1*/₂ ft. wide, broad, and yielding fully 5 tons of excellent quality ore per fm.—**South Workings:** The lode continues large and productive in the 70 fm. level, stops, and the ore of excellent quality. In the rise we are making good progress, and the lode is quickly rich, being worth 5 tons of ore per fm.; good progress is making with the shaft sinking through Carr's adit from the north of the 10. In the level driving north we have a good lode, and the yield of ore is increasing.—**North Workings:** The 5 fm. level stops are as last reported, and without being rich still give a yield of 4 tons per fm. on an average. No alteration worthy of remark has otherwise taken place in this part of the sett, and we have every reason to be pleased with the average yield of the mine. The tribute pitches continue to give remunerative returns.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

TERRA OPEN WORKINGS TIN WORKS are situated near St. Austell, to work which a company is being formed, with a capital of 30,000*s.*, to develop the extraordinary deposits of tin which have been discovered to exist in this sett. The elvan or lode is upwards of 40 feet wide, and for a mile in length. Samples which have been taken have been tried, and found to produce 1 cwt. of black tin per 100 sacks of stuff. They intend erecting 150 heads of stamps, in addition to those already at work, when, no doubt, most satisfactory results will be arrived at.

DARREN.—We have at various times referred to this property, and have pointed out the probabilities of a great success in its ultimate development.

The levels are being driven with great rapidity, and the work progresses without impediment or misadventure of any kind. We are enabled to state that within from two to three months the old mine will be completely unwatered, thus opening a line of ore ground of indisputable value. Tom's cross-cut is being driven towards South Darren lode with considerable speed, and it is expected that the lode will be intersected in about six weeks or two months. It should be remembered in connection with this fact that the lode traverses the entire length of the Darren sett, and that no portion has yet been taken away; independent of which the whole of the ore deposits of South Darren are making towards the Darren sett, and all the levels of that mine are being driven in the same direction. There need be no doubt that in a short time the resources of this great property will be laid open, and that it will become one of the greatest mines in Cardiganshire.

TREDDYRHIN.—This mine is likely to reward the patience of its shareholders; the lode is indeed promising, and considering its present prospects great results must follow before many months are past.

NANGILES.—The prospects in this mine are looking better, especially for tin. The shaft will be down to the desired point (the 130) in about three months; cross-cuts will then be put out to intersect the rich Cliff Amalgamated lodes, which are known to pass into Nangiles. The lode in the 120 west is looking more favourable. There is ore appearing in the rise over the 107 fm. level. The stope in the 96 fm. level is worth 12*1*/₂ tons per fathom. The tin and manganic ground between the 66 and 56 is all laid open; twelve men are stoking at 12*1*/₂ fm. Altogether the mine is progressing favourably, and great improvements shortly expected.

EAST CHIVERTON.—The prospects are better than for some time past. They expect to cut a good lode in the 35 fm. level shortly, which will greatly increase the value of this very promising mine. Considering the important position of East Chiverton, having this West Chiverton lodes passing through its property, there can be no doubt as to its future profitable working. Comparing the present price of East Chiverton shares with other mines in the district, they are selling far below their real value, and may be considered a very cheap investment.

DEVON GREAT MARIA.—The manager of this mine, Capt. Richards, reports an important discovery in connection with it. The workmen have found the position of the shaft in the Orchard lode, and they will be able to clear it by working it from the adit level. The size of the middle lode has increased from 2 to 4 ft. in width, and on the north part a vein of copper ore has been opened upon. It should be borne in mind by investors that this property is to the west of the Devon Great Consols, and upon the same line of lodes. The indications of the country and of the lodes are precisely similar at an equal depth; in fact the most experienced agents could not point out a distinction. We would remind our readers that the property has been inspected, and the result of such inspection was a very favourable report by J. H. Hitchins, consulting engineer of the Devon Great Consols; Capt. J. Richards, the managing agent of the Devon Great Consols; and by other agents of reputation in the neighbourhood.

CHIVERTON MOOR.—The lode in the 40 east is again yielding a good course of lead. The flat-rod shaft will soon be completed to the 50, where a richer lead will be confidently expected than has yet been seen in the mine. The 40 cross-cut is expected to reach the north lode within a fortnight. Without doubt this is the most promising mine in the Chiverton district.

WEST CHIVERTON.—Telegrams received to-day (Friday) report a rich lode being cut in the 100, or cross-cut.

TOLVADDEN.—The old mine has, fortunately, been drowned by the heavy rains. The manager, Mr. Absalom Bennett, in the exercise of his usual judgment, gave instructions to sink a shaft in the new ground recently added to Tolvadden, called Wheal Venton. The result, though only 10 fms. from surface, is that a finer lode never was opened upon in the district than is now to be seen. Two kibbles of ore were broken by the men by the blasting of one hole. The balance in hand, it is probable, will render any further calls unnecessary.

EAST BROOKWOOD is looking very promising, and seems likely to become, when further developed, a profitable enterprise. The engine-shaft is sunk 20 fms. below the adit, and a cross-cut driven north several fms., which have intersected three lodes, two of which are about 3 ft. wide, composed of capela, gossan, peat, and quartz, intermixed with stones of copper ore of excellent quality; they present an encouraging appearance for bearing mineral in large quantities at a greater depth. The other lode is of some magnitude, and presents all the elements of a large mineral-bearing lode, and will doubtless, when further explored, yield copper ore in paying quantities. The decided improvement in the characteristics of the lodes from about 5 fm. below surface, where it was first discovered by sinking a small trial shaft, to the 20 are a sufficient guarantee to warrant us intersecting the same at a deeper point that a good lode will be found; this lode at the 20 is composed of quartz, capela, and occasional splendour specimens of copper ore, which, independent of every other lode, is a sufficient inducement to prosecute the development of the mine vigorously. There are several lodes known to exist further north within the sett than those already intersected, which will be intersected by the cross-cut that is being driven in that direction at the 20. The position of the mine is good, having cross-courses, elvan courses, and only half a mile distant from the granite range. Any practical observer must conclude that all the elements necessary to constitute a good mine are found in East Brookwood.

EAST CHIVERTON.—We are glad to learn the prospects here are much improved. The branches met with in the cross-cut, and the situation of this mining-ground to West Chiverton, can only tend in strengthening the general impression that a good discovery may be expected on the intersection of West Chiverton lode.

DEVON AND CORNWALL UNITED.—*Thos. Neill, March 20:* The lode in the 34 east is still looking well, worth 9 tons of ore per fm.

EAST BOTTLE HILL.—*J. Eddy, March 21:* The lode in the end, west of cross-cut, continues to hold its size, from 4 to 5 ft. wide, and producing saving work. The lode in the east end of the western shaft, in the 10, is small for the present, now from 18 in. to 2 ft. wide, and producing moderate stamp work. We are now getting on with building walls of the wheel-pit. Next week I expect an increase of hands—that is, masons for building.

GREAT CARADON.—*Jas. Seccombe, March 21:* Counter Lode: The 70 east is worth 51 per fm.; the 80 east, 52; the 90 east, 51; the 90 west, producing saving work. South Lode: The 60 east is producing saving work. The 70 east is worth 81; and the 70 west, 122, per fm.—New Lode: The 70 west is worth 81 per fm. In the 70 cross-cut, driving north from the caunter, we have intersected Fawcett's lode, which is about 12 ft. wide, and worth 51 per fm. Our sale of ore to-morrow is much less than usual, on account of the strike. The men have now resumed their work.

EAST CARN BREYA.—*T. Glanville, J. Scholar, March 21:* No. 1 Lode: In the 70, driving west of the old engine-shaft, the lode is yielding 1 ton of ore per fm.—No. 3 Lode: In Thomas's shaft, sinking below the 70, the lode is yielding 6 tons of ore per fm. for length of shaft (12 feet). In the 70, east of Thomas's shaft, the lode is producing 3 tons of ore per fm. In the winze sinking below the 50 the lode is producing 1 ton of ore per fm.—No. 5 Lode: In the 50, driving east of the cross-course, the lode is producing 2 tons of ore per fm.

EAST CHIVERTON.—*J. Gross, J. Nancarrow, March 21:* Since our last report the men have made good progress in the driving of the 55 cross-cut south; the end is still in very congenial elvan. We have no change to notice in the shallow adit north.

EAST GUNNIS LAKE AND SOUTH BEDFORD CONSOLS.—*James Phillips, March 22:* In Gard's shaft there is no alteration. In the shallow adit the lode is now 4 ft. wide, composed of peat, spar, mud, and good stones of ore—a kindly lode. In the deep adit, on the chimney rock lode, the men are making good progress, in favourably ground.

EAST LAXEY.—*Wm. H. Rose, March 20:* In cutting out the small ledge north of the shaft, at the 10, we find the lode resuming its former promising character, having to date broken into a large vug or cavity, on one side of which is a strong branch of black jack about 6 in. thick. There is no change of importance at any other point.

EAST ROSEWARNE.—*J. Jones, March 22:* In the 85, east of Hallett's shaft, the lode is small and poor. In the 85, west of Hallett's, the lode is 1 ft. wide, of a very promising character, worth 127, per fm., and the ground improved for driving. The stopes in the back of the ledge is worth 101, per fm. The stopes in the bottom of the 75, west of Hallett's, is worth 82, per fm. In the 85, east of King's shaft, the lode is 8 in. wide, producing stones of ore. In the 85, west of King's shaft, the lode has come together and formed a lode 15 in. wide, composed of mud and copper ore, worth for copper 61, per fm. This is very promising, and as we get out of the elvans (which will be shortly) we may expect further improvement. The water is flowing freely from the lode, and the ground easy, which are good features.

We shall, of course, know more of the discovery as we proceed, but I have no hesitation in stating that I consider the prospects at present superior in many respects to those presented by Great North Laxey at the same depth.

EAST ST. JUST UNITED.—*John Cartew, Peter Cawley, March 20:* Our pay and setting on Saturday passed off very well. We continue the sinking of the engine-shaft below the 10, and the clearing up a winze below the 10, to the west of the shaft. We have cleared 21 feet below the level; there is a branch of tin in the east end, which will pay very well to work. North Bosorne shaft we hope to have completed to the 30 (or the bottom, as represented to us) by next setting-day.

From what we can see of the lode we believe we shall be able to set some tribute pitches here when the shaft is completed.

The 10, east of Cranjack, is in a kindly lode, 2 feet wide, with good stones of tin.

We are sinking the winze below the 10 with all speed. On Wheal Venton lode we find the old miners have worked away the lode from the surface to the shallow adit for 70 fathoms in length. We are working a stope in the back of the deep adit, at 28s. per fathom, worth 61, per fathom; this is a most promising lode, and likely to produce good quantities of rich tin-stone.

EAST WHEAL AGAR.—*W. Johns, March 20:* We have recently cut a lode in the 45 cross-cut south; it is about 1 ft. wide, containing good stones of copper ore, mixed up with flint-spar, with water coming out of the same freely; this lode is about 2 fms. distant from Hex's lode, and may be considered very promising. We shall open out a few fathoms on its course, to give it a start before resuming the driving of the cross-cut to see the other lodes. We are still breaking good stones of copper ore in Dunsford's engine-shaft, with a dropper falling into the lode from the north, containing mainly ore, which, in our opinion, will have a tendency to improve the lode when united. Our tributaries are working on the in usual way.

EAST WHEAL GRENVILLE.—*G. R. Odgers, W. Bennett, March 21:* The lode in the engine-shaft, sinking below the 85, from 1 ft. to 15 in. wide, of prian and quartz, which yields a little ore—a promising lode. The lode in the 85 west is from 2 to 2½ ft. wide, with strong yellow ore and mud, worth 3 tons of ore this morning to the fm.—a very kindly lode; this end is now 6 ft. behind the winze. The lode in the 75, east of the engine-shaft, is 15 in. wide, of quartz, ore, and mud. The men are getting on pretty well in the 75 cross-cut north, and we like the ground very much indeed. The lode in the winze sinking below the 75 west is 2 ft. wide, and in the western end of it there is a good bunch of ore, worth 4 tons to the fathom; this winze is 7 fathoms deep, and we are using every effort we possibly can to form a communication with the 85. The different stops throughout the mine are much the same as before reported.

EAST WHEAL GRYLLS.—*Edward Rogers, Edmund Rogers, March 22:* Firmstone's engine-shaft is down 8 fms. 3 ft. below the 17; the lode is 3½ ft. wide, worth 51, per fathom. Curtis's flat-roof shaft is down 9 fms. below the 7; the lode is 2 ft. wide, and worth 61, per fathom. At the 7, driving east of this shaft, the lode is 18 in. wide, worth 51, per fathom. In the winze in the bottom of this level, west of shaft, the lode is 2 ft. wide, worth 42, per fathom. At the 10, driving east of Thomas's shaft, the lode is 1 ft. wide, unproductive.

EAST WHEAL LOVELL.—*R. Quenlant, March 21:* The mine continues to open out very well, and I will give a report in detail next week.

EAST WHEAL RUSSELL.—*J. Goldsworthy, March 21:* Homersham's shaftmen have been for the last ten days fixing the work from the 130 to the 140, which we hope to complete by to-morrow morning. In the 140 east the lode is 3 ft. wide, composed of quartz, prian, mud, and a little copper ore, of a promising character. The winze-plat in the 130 is nearly completed, when a winze will be sunk to the 140, with a full pare of men, so as to ventilate the 140, and also to prove the lode. In the 130 east the lode is 2½ ft. wide, composed of capel, quartz, prian, mud, and copper ore, presenting indications of improvement. The stopes in the back of the 130, west of Barkell's winze, is worth 251, per fm. The stopes in the back of the 130, west of Barkell's rise, is worth 201, per fm. The 77, west of Northey's cross-cut, is worth 51, per fm.

EAST WHEAL RUSSELL.—*J. Richards, March 22:* In Homersham's shaft, sinking below the 140, the ground is favourable for progress. In the 140, east of Homersham's shaft, on the south part of the lode, the lode is 3 feet wide, and consists of mud, quartz, and prian, occasionally yielding good stones of copper ore, and is promising. In the 130 east the lode is from 2 to 3 feet wide, composed of quartz, capel, mud, prian, and ore, and promises improvement. In the bottom of the 130, east of Homersham's shaft, a plat is being cut, and as soon as it is completed a winze will be sunk to the 140 on the south part of the lode for proof thereof, and for the better ventilation of the level below. The lode in the stopes in back of the 130, east of Homersham's shaft, west of Barkell's rise, is worth 201, per fathom. In the stopes in back of the 130, west of Barkell's winze, the lode is worth 201, per fathom. In the 77, east of Homersham's shaft, west of Northey's cross-cut, the lode is worth 1 ton of ore, or 51, per fathom.

FURSDON.—*March 22:* The engine-shaft is 3 fathoms below the 31; the ground is hard capel, which is not so good for progress. The cross-cut north in the 31 west is being driven 2 fathoms 1 foot. We have not cut any branch. The ground below hard we have suspended the driving, and put the men to drive west, as we wish to get back under the ore ground zone down in the bottom of the 21 as soon as possible; this end is set to six men, at 40s. per fathom. The pitch in the back of the 21 west is yielding 2½ tons of ore per fathom. We expect to sample for this month about 20 tons of better quality than that sold of late.

GARLIDNA UNITED.—*J. Rowe, March 22:* The lode in Wheal Crane shaft is still producing good work for tin. We have sunk by horse-power 8 ft. through a lode that will work at 10s. in 12 tribute. Everything about the lode and stratum is favourable for a good lode a little deeper.

GAWTON COPPER.—*G. Rowe, March 17:* Our progress in sinking the new engine-shaft below the 50 is very satisfactory. The lode in the 50 east is worth 3 tons of ore per fathom. The lode in the 50 west is not quite so easy for progress, worth 3 tons of good quality ore per fathom. The lode in the 40 west is worth 2 tons of ore per fathom. The lode in the winze sinking below the 35 is improving, worth 4 tons of ore per fm.

In the back of this level (the 35) the stopemen are engaged in lengthening the stull, consequently there is no change in the appearance of the lode since last reported on.

GODOLPHIN HILL.—*J. Pope, Junr., March 21:* We have a favourable change in the nature of the lode in the deep adit, driving south-east of Charles's shaft, on the camber; it is now much easier for driving, letting down water, and carrying a little tin. In the tribute department there is no change to report.

GOGINIAN.—*March 21:* The rise in back of the 100 is communicated to the winze sinking under the 80. The 100 is now well ventilated. We shall throw in all the force we possibly can on the ore ground, in order to raise as much ore as possible. We have set a drift to drive west of the rise over the 100, where the lode is 3 ft. wide, yielding 15 cwt. of lead ore per fathom. The two stopes over the 100 will yield on an average 1 ton of lead ore per fathom. We have four pitches working, yielding on an average 14 cwt. of lead ore per fathom.—Level Newydd: The lode in the stopes over the 60 is 5 ft. wide, yielding 12 cwt. of lead ore per fathom. But little has been done at this point during the past two months, in consequence of being near the Pwll-y-bryn-nad workings.

GOTHIC.—*Jas. Lester, March 21:* The managing director was here some time back, and arranged with me for future operations, which I have since begun to carry out. The mine is now drained to the bottom or 30. In a few days the repairs of the engine-shaft will be finished from the adit to the 30, and after clearing out the stuff accumulated in the 17, 25, and 30 fm. levels I intend to set six men to drive east, where the returns of ore were made by the former proprietors in the 30. The 25 is driven 25 fathoms, 16 of which the lode was very productive, being worked from this point to surface and below, in pieces, to the 30. A few fathoms east of shaft there is a good branch of lead ore where the tributaries left off working, and about 1 fm. below this level, which would pay for stopping. Six men are now driving a cross-cut from this level to cut the south lode, which we expect to intersect in about 8 fms., and from the appearance of the lode at the adit level will be found productive; this will give us 25 fms. of whole ground. Six men are driving in the adit level, west of shaft; the lode here for some fathoms contained a nice mixture of lead ore, but is now not looking so well. The 17, east and west, I will examine as soon as the engine-shaft is cleared out. Four men are driving a cross-cut from the side of the hill above the water-course to the engine-shaft; this, when completed, will be of much advantage in the discharge of staff, and the water could be brought sufficiently high to wash the staff at a proper place for picking ores, &c. Judging from what I can see of the lode in bottom of the 25, I should consider a large quantity of lead ore must have been raised therfrom, and I have no doubt that as we get levels extended, and the south lode laid open, of being able to do so again.

GREAT BRIGAN.—*T. Tredinnick, March 21:* We have holed the rise in back of the 10 to the stopes west of No. 1 lode; the lode in this stope is worth for copper ore 81, per fathom. The lode in the stopes east of the No. 1 lode is worth for copper ore 101, per fathom.

GREAT DEVON AND BEDFORD (Colection).—*William Skewis, J. Richards, March 22:* The lode in the winze sunk in the bottom of the 30, west of the engine-

shaft, is 4 ft. wide, composed of capel, quartz, copper ore, &c. The lode in the 40 west is about 3 ft. wide, of the same character as that in the winze. We have thought it best to suspend the sinking of the winze, and put the men to rise in the back of the 40 west, as it can be done much cheaper than sinking from the 30.

GREAT CARADON.—*S. Harper, March 21:* We are sinking with all possible speed. The ground in the shaft is a great deal easier for sinking, composed of killas and spar, and letting out a little more water.

GREAT NORTH DOWNS.—*William Rich, Marin Jenkins, March 21:* The 60 end, west of Sleggan's shaft, is yielding good stones of ore, and the ground is somewhat easier for driving than it has been. The lode in the 70 west is large and promising, but poor for copper at present. The water in Sleggan's shaft is going down slowly; we shall resume operations here as soon as the shaft is dry.

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GREAT SOUTH TOLGUS.—*J. Daw, March 21:* In the 178, east of Lyle's shaft, the lode is 3 ft. wide, composed of spar and peach, and good stones of copper ore. In the 166 east the lode is 2 ft. wide, producing 1 ton of ore per fm. In the 154, east of the new shaft, the lode is 1½ ft. wide, producing 1 ton of ore per fm. In the 140, east of the new shaft, the lode is 1 ft. wide, unproductive. In the rise in the back of the 125, against Noel's shaft, the lode has been disordered, but it will now produce 1 ton of ore per fm.

GREAT WHEAL BADDERN.—*R. Pryor, H. Tregoning, March 17:* We have set the following bargains to-day:—The 75 cross-cut to drive south of Hill Brothers' engine-shaft, by six men, at 127, per fm., which is still in Baddern elvan course, and we have to inform you that the end is thickly impregnated with mud, which is an indication to see we are near the Baddern lead lode; the water which is flowing from the present end is immense, and is daily increasing. The 63 cross-cut to drive south of this shaft, in the bottom of the shaft to day, and fair progress is being made in sinking; the ground is of the same lead-bearing character as before. The water has abated below the 75, east of Lyle's shaft, at Jenkins's lode, we have intersected a branch 9 inches wide, carrying spots of ore. We have twelve men enlarging Sleggan's shaft, to take pitwork, and are urging on the different places of operation as rapidly as possible.

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GREAT WHEAL BUSY.—*Wm. Rich, J. Tredinnick, C. Rawdon, March 21:* We have put on eight men instead of six to drive the 130 fm. level east of Offord's shaft, with the view to urge on the lode without interruption; the lode is still large and promising, composed chiefly of mud, with stones of copper intermixed. We have not yet intersected the lode in the cross-cut south from the winze, over the 138 fm. level end, but we think we have no great distance further to drive. The 110 fm. level end, east of Walker's, is worth 117, per fm., and ground somewhat easier than it has been. The south lode, in the 100 east, is 2 ft. wide, saving work for tin; we have commenced to open it up, to prove it in an easterly direction. There has been no lode taken down in the 90 east during the past week; we intend to open it up within the next few days. The lode in Walker's shaft, sinking below the 100, is getting larger, and seems to be improving; now worth 151, per fathom. In the back of the 100, west of Walker's, No. 1 stope is worth 127; No. 2, 77; and No. 3, 111, per fm. The back of the 90, west of Walker's, is worth 101, per fathom; the bottom of said level west is worth 151. The 80, east of Walker's, is worth 121, per fathom. The back of the 70 west is worth 101, per fathom; bottom of ditto, 121, per fathom. We have engaged a party of men to clear down the shaft throughout this mining area to prove it in an easterly direction. There has been no lode taken down in the 90 east during the past week; we intend to open it up within the next few days. The lode in Walker's shaft, sinking below the 100, is getting larger, and seems to be improving; now worth 151, per fathom. In the back of the 100, west of Walker's, No. 1 stope is worth 127; No. 2, 77; and No. 3, 111, per fm. The back of the 90, west of Walker's, is worth 101, per fathom; the bottom of said level west is worth 151. The 80, east of Walker's, is worth 121, per fathom. The back of the 70 west is worth 101, per fathom; bottom of ditto, 121, per fathom. We have engaged a party of men to clear down the shaft throughout this mining area to prove it in an easterly direction.

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lications will be received after Wednesday next for London, nor after Thursday from the country.

At Truro Ticketing, on Thursday, 4803 tons of ore were sold, realising 19,890*l*. 11*s*. 6*d*. The particulars of the sale were:—Average standard, 120*t*. 18*s*; average produce, 5*q*; average price per ton, 4*t*. 3*s*; quantity of fine copper, 273 tons 15 cwt. The following are the particulars:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Per unit.	Ore copper.
Feb. 25.	4194	... £120 12 0	53	£4 2 0	...	14s. 6d. £72 8 0
March 1.	2657	114 8 0	62	4 6 0	...	13 11 <i>s</i> 6
" 8.	2447	111 18 0	7	5 3 0	...	14 6
" 15.	1856	116 8 0	62	4 7 0	...	14 3
" 22.	4903	120 18 0	53	4 3 0	...	14 6 <i>s</i> 6

Compared with last week's sale, the advance has been in the standard 1*t*, and in the price per ton of ore about 1*s*. 2*d*. Compared with the corresponding sale of last month, the standard is about stationary.

At the Swansea Ticketing, on Tuesday, 2245 tons of copper ore were sold, realising 26,221*l*. 10*s*. The particulars of the sale were:—Average standard, 97*t*. 3*s*. 0*d*; average produce, 14*q*; average price per ton, 11*t*. 13*s*. 6*d*; quantity of fine copper, 322 tons 15 cwt. The following are the particulars of the sales during the past month:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Per unit.	Ore copper.
Feb. 13.	1954	£95 18 6	157	£12 19 0	...	16s. 4 <i>d</i> £88 17 6
Mar. 20.	2245	97 3 0	142	11 13 6	...	18 3 ... 81 4 6

Compared with the last sale, which is also the corresponding sale of last month, the standard is about stationary. Of the 2254 tons sold on Tuesday 163 tons were British ores, which gave an average produce of 9, and sold at an average standard of 105*t*. 12*s*. 6*d*;—7*t*. 2*s*. 1*d*. per ton of ore; the remaining 2082 tons were foreign ores, which gave an average produce of 14*q*, and sold at an average standard of 96*t*. 15*s*. 12*d*. 0*s*. per ton of ore. On April 10, there will be offered for sale 1694 tons, from Cobre, Concordia, Africa, Leghorn, Berehaven, California, Cape, Gwalla, Yan-ganoka, N.T.M., and Mina de Azambugeira.

The directors of the Devonshire Great Consolidated Copper Mining Company, at their board meeting, held yesterday, declared a dividend of 92*s*. 6*d*, being 9*t*. per share, arising from profits on sales of copper ores sampled in the months of November and December last. After payment of the same, there remains in hand a balance of 18,354*l*. 17*s*. 4*d*. in cash, ore bills not at maturity, and reserved fund, applicable to the general purposes of the company.

At the Great Wheal Vor United Miners meeting, on Wednesday (Mr. G. Neakes, F.G.S., in the chair), the accounts, made up to the present date, showed a credit balance of 691*l*. 12*s*. 6*d*. A dividend of 1*s*. 6*d*. per share was declared, leaving 22*s*. to be carried forward to the credit of the next account. Details in another column.

At Wheal Trelawny Mine meeting, on Thursday, a dividend of 10*s*. per share was declared.

At the West Bassett Mine meeting, on Wednesday, the accounts showed a balance carried over from last meeting, 242*l*. 19*s*. 11*d*; copper ore sold, 2807*t*. 18*s*. 1*d*; tin ore sold, 357*t*. 7*s*. 6*d*; advance on tribute received, 210*l*. 36*s*. 5*d*.—Costs for Dec. and Jan., 2362*l*. 18*s*. 9*d*; royalty, 210*l*. 3*s*. 2*d*; advance on tribute, 200*l*; sundries, 17*t*. leaving balance, 858*t*. 8*s*. 7*d*. The balance, 858*t*. 8*s*. 7*d*, and the proceeds of sales of ore not at maturity, amounting to 2530*l*. 19*s*. 3*d*.—3389*l*. 2*s*. 10*d*, applicable for the general purposes of the adventure, were carried over to the next account.

At the East Wheal Vor meeting, yesterday (Mr. Foord in the chair), the accounts showed a debit balance of 267*l*. 19*s*. 6*d*. A call of 2*s*. 6*d*. per share was made. The agent (Captain Pollard) urged the desirability of continuing the 60 east and the sinking of the shaft. Mr. E. Cooke thought that the agent should be instructed to confine the expenditure to those points most likely to prove immediately productive. He reminded the shareholders that the main point for which the mine was started—the intersection of the junction of the lodes—was not yet reached, owing to a change in the underlie. Therefore, while they regretted the delay, they had yet no cause for disappointment. Messrs. Foord, P. Watson, and E. Cooke were appointed the committee of management.

At North Croft Mine meeting, on March 15, the accounts showed a debit balance of 585*l*. 10*s*. 4*d*. A call of 2*s*. 6*d*. per share was made. The unpaid calls amount to 211*l*. 6*s*. 6*d*. Capts. Vivian, Thomas, and Bennetts "calculate from present appearances and prospects to raise in the next four months 45 tons of tin, and for the drop which has taken place in the price of black tin within the last two years, this would enable us to give moderate profits. We may remark, in conclusion, that the prospects of the mine, having reference to the production of tin and future development, were never anything like so good as they are at present, and should the price of tin again rally it will place us in a very good position."

At the Marquita and New Granada Mining Company (special) meeting, on Monday (Mr. R. A. Routh in the chair), the resolution for voluntarily winding-up of the company was unanimously confirmed. Messrs. R. A. Routh, A. Cobbett, and W. Moates were appointed liquidators. The basis upon which it is proposed to form the new company was explained. Details in another column.

On the Stock Exchange transactions in Mining Shares have been to a limited extent during the week. The following quotations were officially recorded in British Mining Shares:—East Caradon, 8*t*. 8*s*. 8*d*; East Carn Brea, 4*t*; Great Laxey, 21*t*. 20*s*; Great Wheal Vor, 27*t*. 26, 26*t*. 26*s*. In Colonial Mining Shares the prices were:—Cape, 11*t*; Port Phillip, 1*t*; Scottish Australian, 2*t*; Kapunda, 2*t*. In Foreign Mining Shares the prices were:—Chontales, 4*t*. 3*s*. 3*d*; Frontino and Bolivia, 1*t*; St. John del Rey, 54*t*. 55*s*. 54*d*; United Mexican, 2*t*. 2*s*. 2*d*; Panaulillo, 4*t*; Don Pedro North del Rey, + p.m.; Washoe (4*t*. paid), 5*t*; ditto (5*t*. paid), 6*t*. 7*s*. 7*d*; Alamillos, 1*t*. 1*s*; Cobre, 14*t*.

The Norton Iron Company (Limited) have declared an interim dividend at the rate of 10 per cent. per annum, free of income tax.

The ordinary general meeting of the Credit Foncier and Mobilier of Eng. (Limited) will be held at the London Tavern, Bishopsgate-street, on Wednesday, April 25, at twelve o'clock precisely, for the purpose of receiving the directors' and auditors' report and balance-sheet, and for declaring a dividend. The transfer books of the company will be closed from 4 p.m. on Wednesday, April 18, until 10 a.m. on Friday, April 27.

The Trinidad Petroleum Company (Limited) have received information, by the West India mail from Trinidad, that oil had been struck at Arigera, and the quality in all respects equal to Pennsylvanian. They said to be enormous.

Mr. J. G. T. Sinclair has retired from the board of the Public Works Credit Company (Limited).

Mr. J. de Mancha (Mancha and Co.) has joined the board of the London Bank of Mexico and South America (Limited).

COAL MARKET.—The fresh arrivals this week only reached 49 ships. Household coals have continued in steady demand, and prices generally quote 3*d*. to 6*d*. advance. Hartleys have also been in fair request, and advanced 3*d*. South Hetton Wallsend, 19*s*; Hetton Lyons Wallsend, 15*s*. 3*d*; Tunstall Wallsend, 15*s*. 3*d*. Unsold, 5*s*. Ships at sea, 140.

COAL IN JAPAN.—Several coal mines are at present being worked in the island of Yesso, although, owing to the primitive system adopted, they are of little importance. A new coal mine has lately been discovered in the neighbourhood of Iwanai, in the north-west part of the island. It is said to contain coal of a very good quality, and if properly worked might produce coal very far superior to that of the other parts of Japan. This mine is the first one worked according to European system, and promises fair for the future.

SHORT OF COAL.—It appears that much inconvenience has been caused to several towns on the eastern coast of Spain by the non-arrival of cargoes of coal and coke expected from England. At Barcelona itself the stock of fuel was exhausted, and many factories were on the point of closing, and even the railway service was about to be suspended for want of coke, when some timely arrivals prevented this cessation of industry and its disastrous consequences. At Almeria and Cartagena the greater part of the smelting works had been stopped by a similar want of fuel. The failure of the supply is attributed to the great demand at the English coal pits and the time that ships have to wait before they can be loaded. It may be, however, that the tremendous south-west gales in the Bay of Biscay and Atlantic this winter have greatly retarded vessels bound to the Mediterranean.

THE TIN TRADE.—The Banca tin sold in Holland on Thursday, 111,800 slabs, realised, on the average, 49*s*. 8*f*, equal to 87*l*. 10*s*. per ton in London, considerably lower than it has been for the past fourteen years, and 33*s*. 8*f*. below that of the year 1859; but then the terms of credit assimilate the price more towards last year. This price is even lower than many parties likely to be well acquainted with the state of the trade anticipated. Under these circumstances, a further decline in the price of English tin is not improbable.

NEW YORK, MARCH 8.—The market for Scotch pig-iron is firm, on account of late advances in England, and holders are unwilling to make concessions. The trade is, however, owing for the most part to speculation. American pig is lower, with a very limited demand. One company has reduced the price to 4*t*. 6*s*. and sales of a few hundred tons have been made at this price. The supply of Scotch pig at the dock is ample, but in yard is very limited, and parcels for immediate delivery are scarce. No further change has occurred in bar-iron. The amount of business is not large, but a number of small orders are coming in. In the prices of pig-iron there has been a reduction of about 1*cwt*. per lb. in gold. For some time past the market has been extremely dull, and prices have been quite nominal. So far, this concession has not improved the demand much, there being but few sales. The scarcity in tin-plated still continues, and prices are very firm. Orders from the interior are frequent, and the amount of business, for the time of year, considerable. There has been a decline in copper, partly owing to the very small demand. Lead is unchanged, though a little weaker in price. The demand is very small.—*Iron Age*.

BEDFORD.—on Sunday, the 18th inst., at Mile-end, aged 69, Mr. THOMAS COOPER SMITH, of 15, Finsbury-place South, secretary of the St. Just United, Roaring Water, and Gian-y-Wll Mining Companies.

DEATH OF CAPT. FRANCIS.—"The memory of the just is blessed." A just tribute to the memory of Captain Francis Francis, whose upright character and faithful services will be long remembered by his employers at the Great Wheal Vor Mines. He died at the Chontales Mines, Nicaragua, Central America, on Jan. 14, 1866, aged 44 years. Capt. W. Paul, in recording this sad and unexpected event, says "The company (Chontales) loss in him a most upright, faithful agent, whose zeal and ability would have been invaluable."

COLLIERY MANAGER.—The PROPRIETORS of a COLLIERY in WALES, recently opened at a cost exceeding £10,000, and now possessing all the facilities for the commencement of an extensive trade, WISH the SERVICES of a thoroughly PRACTICAL MAN as MANAGER. He will be required to take a pecuniary interest in the share capital of the company to the extent of £1000. The salary will be £250 per annum. Address, with full particulars as to qualifications, to "O. Z.", at Messrs. Waterlow's, Birch-lane, London, E.C.

Slate Quarry Manager wanted.—An EXPERIENCED PRACTICAL SLATE QUARRY MANAGER REQUIRED, to UNDERTAKE the PRACTICAL MANAGEMENT and DEVELOPMENT of an important SLATE QUARRY in NORTH WALES. A house will be provided near the quarry.—Full particulars of past and present engagements, with testimonials and salary required, to be forwarded to "X. Y.", care of Mr. J. W. Vickers, 2, Cowper-court, Cornhill, London, E.C.

SLATES.—A GENTLEMAN, having a LARGE CONNECTION with the SALE of ALL KINDS of SLATES, is DESIROUS of TREATING with parties who can REGULARLY SUPPLY. First-class references and security to any amount given.—Apply to "L. S.", care of Mr. W. Hopcroft, 1, Mincing-lane, London, E.C.—March 28, 1866.

MINING BUSINESS IN SOUTHERN GERMANY.—The OWNER of some most valuable mines WISHES to JOIN with one or more CAPITALISTS to carry out the BUSINESS in COPARTNERSHIP, or in FOUNDING a SHARE COMPANY for the same purpose.—Address to "L. H. B.", 126, Southgate-road, N.

WANTED, a SITUATION, as ASSAYER and ANALYTICAL CHEMIST, accustomed to Laboratory Work. No objection to go abroad. Address, "A. H. H.", No. 22, Norland-square, Notting-hill, London, W.

MINING.—WANTED, a COMPETENT MINING ENGINEER, to PROCEDE to SOUTH AMERICA to INSPECT PROPERTIES. Must have first-class testimonials. Address, Colombian Consulate, 25, Moorgate-street.

WANTED, a NEW or SECOND-HAND STEAM-CRANE.—Quotations of price to "P. G. H.", MINING JOURNAL office, No. 26, Fleet-street, London.

WANTED, a BORING or DRILLING MACHINE for HARD ROCKS in TUNNEL WORK. The advertiser would be glad to correspond with parties who have an invention of that kind. Apply, in the first instance, to "D. J.", MINING JOURNAL office, 26, Fleet-street, London.

TO MINING SURVEYORS.—WANTED, in the Office of a Mining Engineer, in the Midland District, a COMPETENT ASSISTANT. Requirements: Good draughtsman, colourist, and accurate mine surveyor. State terms (with copies of testimonials), to "M. E.", Messrs. Rastall and Son, 114, Eccleston-street, London, S.W.

TO CAPITALISTS AND OTHERS.—The ADVERTISER, having the OFFER of ONE OF THE MOST PROMISING COLLIERIES in NORTH WALES. The royalty is about 500 acres, and is already proved to contain four valuable seams of coal, adapted both for house and steam purposes, and the returns on the capital invested will be at least 50 per cent. annually. The capital is required for the full development of the concern, and if preferred the incoming partner may have the entire management, financially and otherwise.—Address, "W. 15", Post-office, Liverpool.

LIVERPOOL AGENCY.—A GENTLEMAN, holding a very responsible Agency in Liverpool in the Metal Trade, is DESIROUS of UNDER-TAKING ANOTHER AGENCY in any branch of the METAL TRADE, to work with that which he already holds. Unexceptionable references.—Address, "F. M.", care of Editor of the MINING JOURNAL, 26, Fleet-street, London.

COMMISSION AGENCY.—A GENTLEMAN, residing in the heart of the West Cornwall mining district is WILLING to UNDERTAKE the SALE of CANDLES, STEEL, ROPE, or any other MATERIALS USED IN MINING, on commission. The highest references will be given. Advertiser has a large mining connection. Apply, "H. W.", MINING JOURNAL office, 26, Fleet-street.

A GENTLEMAN having an extensive connection with Merchants, Manufacturers, and others, would be GLAD to UNDERTAKE the SALE of PATENTED ARTICLES or INVENTIONS, on commission.—Apply to Mr. W. T. T. Geno, patent and mining agent, 8, Small-street, Bristol.

A GENTLEMAN, of many years' experience in mining, and fully competent to undertake the underground and surface management of a large colliery, is DESIROUS of an ENGAGEMENT in that capacity. First-class references. Address, "F.," box 57, Post-office, Birmingham.

A VALUABLE SLATE PROPERTY ON SALE, situated in the most favourable part of the FESTINIOG DISTRICT; good water power, and within a short distance of the Festiniog Railway.—All particulars from "W. S. C.," C. 87, Post-office, Liverpool.

THE FORTUNE COPPER MINING COMPANY OF WESTERN AUSTRALIA.—SHARES in this company TO BE SOLD. No reasonable offer refused.—Apply to Mr. J. W. HART, 60, St. Mary Axe, London.

CIRENVER AND WHEAL ABRAHAM MINING COMPANY (LIMITED).—THIRTY SHARES FOR SALE, £315*s*. paid. Price, £1 per share. Apply to "W.," care of Mr. Barker, Castle-court, St. Michael's-miley, Cornhill, London, E.C.

METROPOLITAN DISTRICT RAILWAY COMPANY.—Notice is hereby given, that NO FURTHER SUMS can be RECEIVED for PAYMENT in full in anticipation of CALLS, in respect of the scrip certificates of this company, after Saturday, the 14th of April next, until further notice.

DEVON, Chairman.

M. R. GEORGE DARLINGTON, CONSULTING MINING ENGINEER (Graduate of the Royal School of Mines), GROVE PARK, WREXHAM.—Mr. DARLINGTON is OPEN to ACCEPT ENGAGEMENTS TO REPORT UPON, MODEL, or ARRANGE MINES or MINING WORKS, and from his practical and varied experience in all kinds and classes of mines, both abroad and at home, especially on the Continent, in America, and in Australia, he can confidently offer his services to those who may require faithful reports or examinations of mining properties at home or abroad. Mr. DARLINGTON speaks French and German fluently, and is acquainted with the mining laws of those countries.

M. R. WALTER TREGEELAS, 122, BISHOPSGATE STREET WITHIN, continues to deal at close market prices in all DIVIDEND and good sound PROGRESSIVE MINES, either for cash or the account.

W. TREGEELAS calls the attention of his friends to the Taquaril Gold Mine (Limited), in 50,000 shares of £2 each. Deposit 5*s*. per share on application. No call to be made at a less interval than three months, or to exceed 5*s*. per share, neither is it anticipated that more than £1 per share in all will ever be required. Shares are largely subscribed for, and W. TREGEELAS has only a very limited number for distribution amongst his friends at par.

MINES PURCHASE AND FINANCE COMPANY (LIMITED).—The directors of this company have made an arrangement by which they can ensure an allotment at par of a certain number of shares in the MINERAL RIGHTS ASSOCIATION (LIMITED) to all the shareholders in the MINE PURCHASE AND FINANCE COMPANY (LIMITED) who will send in an application to us at once. The shares are at a premium of 10s. per share. A prospectus will be sent, together with a form of application, to those who require it; but the list is fast filling up it is necessary that we should know as early as possible what names to include in it.

WATSON AND CUELL, 1, St. Michael's-alley, Cornhill, London, E.C.

WATSON AND CUELL'S MINING CIRCULAR.

WATSON AND CUELL,
MINING AGENTS, STOCK AND SHARE DEALERS, &c.
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

MESSRS. WATSON AND CUELL having made arrangements for transferring their weekly Circular, which has had so large a circulation during the past ten years, to the columns of the *Mining Journal*, their special reports and remarks upon Mines and Mining, and the state of the Share Market, will in future appear in this column.

In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. Watson, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium, published in 1843, Mr. Watson was the first to recommend the system of a division of small risks in several mines, ensuring success in the aggregate, and Messrs. Watson and Cuell have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share dealing than there is at present; and from the lengthened experience of Messrs. Watson and Cuell they are emboldened to offer, thus publicly, their best services to all connected with mines or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON and CUELL transact business in the purchase and sale of mining shares, and other securities, payment of calls, receipt and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years active connection with the Mining Market.

Messrs. WATSON and CUELL also inform their clients and the public that they transact business in the public funds, railway, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON and CUELL are also daily asked their opinion of particular mines, as well as to recommend mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. WATSON and CUELL having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the most confidence in rendering their advice on all matters relating to the state and prospects of mines and mining companies, and are enabled to supply shares in all the best mines at close market prices, free of all charges for commission.

WHEAL GRENVILLE.—Before we had seen the letter of "Another Shareholder," in last Saturday's Journal, we had written very strongly to the agent upon the points he refers to; and, in reference to No. 3, almost in the same words. We can assure your correspondent that we have not been annoyed simply because shareholders have been stirring up this matter, and making fair enquiries as to the management of the mine; because, in reference to any mine with which we are connected, we court the fullest enquiry and discussion. Our great annoyance has been that the attacks upon Grenville, to our certain knowledge, did not emanate from shareholders at all, but from those who had a personal interest in depreciating the property.

Again, we have been told openly that the management of the mine would be in Cornwall in less than half a month; and what does this imply? Simply the purchase of at least half the mine when, we suppose, the shares are considered to have been sufficiently depressed? Personally, it is a matter of indifference to us where the mine is managed, so that it be managed fairly and well; but we do most decidedly protest against the means that have been adopted to depreciate the property, and frighten present shareholders out of it.

Early in 1864 the reserves in the mine were estimated at 15,000t. to 18,000t., and since that time we have erected steam-stamps, made extensive dressing-doors, built barn-ovens, and have sunk a new shaft in the heart of the tin ground from the surface to a depth of 120 fms. This extra work, of which the shareholders will soon be reaping the benefit, has cost 5000t. During the same period we have sold 312 tons 17 cwt. 13 lbs. of tin, for 18,191. 1s. 6d., and there is still ore in reserve worth 17,000t. Does this show bad management? In the early part of 1864 we got 722. 11s. 1d. per ton for tin; soon afterwards it dropped to 522. 2s. 1d., and this difference of 142. 8s. 2d. per ton made a difference to us of 45077. 10s. 4d. on the lot sold, which would have nearly paid for all the extra and necessary works. This, then, is the present position of the mine—5000t. have been spent in extra works, of which we shall now be reaping the benefit. We have extensive and valuable machinery and plant. We have ore in reserve worth 17,000t., and our shares have been brought down to 25/-, which puts the mine, plant, &c. (making return close upon 1000t. a month), at about the value of the ore in reserve; and when a fair rise in the world enables us to make good profits. Thus much for the tin mine, but shareholders must remember that the flat-rod shaft is going down in another part of the sett on the *East Grenville* lode; this, in itself, is a valuable speculation, and proved by the operations at *East Grenville*. We have thus given the true position of the mine, so far as we are able to arrive at it, and if after this holders are frightened out of their shares it will be their own fault. Our honest opinion is that everyone should double his stake at present prices, especially those who bought high.

"J. E."—The last we heard from *Wheal Truscott* was that the lode was not cut, but the cross-cut is still in the elvan, and easier ground. We have every reason to expect a fine lode when cut, as it yielded a good many tons of ore in the shaft, and was of a highly promising character.

"X. Y. Z."—We cannot answer the question publicly.

WEST VOR and WEST METAL.—Received.

CHONTALES.—If our correspondent, "Alpha," has been recommended to sell Chontales shares to go into a new scheme, he has been badly advised. Chontales is a success, and in a few months will probably pay enormous dividends, but its very success will be taken advantage of to hoist off lots of new mines, and great caution must be observed on the part of the public. Capt. Paul estimated the profits of Chontales in the prospectus at 234,000t. a year, on a capital of 150,000t., and he now hopes to do more than he promised. It will take a few months to get up the machinery, after which the returns will increase monthly, and we have reason to think a profit of 10,000t. a month will be made before the year is out.

"O. J." (Derby).—We see no good prospect in either, and if not stopped you can relinquish.

"A. A."—If the purser or agent of any mine whatever addressed such language to the men on *Kitt Hill* he should be at once removed from his situation; we think, however, our correspondent must be mistaken.

FOREIGN LANDS AND MINERAL RIGHTS.—There are two new companies formed on the principle of the Foreign Lands—Central American Association (Limited), in 30,000 shares of 5/- each; and the Mineral Rights Association (Limited), also in 30,000 shares of 5/- each, deposit 10s. per share, and 10s. on allotment. The Central American Association propose dealing in mahogany, cedar, sarsaparilla, India-rubber, and other kinds of merchandise, which many people consider objectionable, but the directors of the Mineral Rights Association will confine themselves strictly to those objects which resulted in such an enormous profit to the Foreign Lands. The Chairman of the Foreign Lands is a director of the Mineral Rights, one of, if not the largest shareholder in Chontales is its Chairman, and the shares are already at a premium of 10s.

"TABLE OF THE ELEMENTS."—There are certain data connected with the science of chemistry which many find it an almost insuperable difficulty to commit to memory, although in the laboratory they are constantly required. To obviate the inconvenience which would, under such circumstances, be otherwise experienced from continually referring to a text book, an elaborate and extremely legible table—"Table of the Elements"—has been compiled by Mr. J. CARTER BELL, F.C.S., Associate of the Royal School of Mines, and published by Mr. H. Hardwick, of Piccadilly. The names of the 63 recognised elements are given in a vertical line, and each element is followed, in succeeding columns, by its symbol; its equivalent, according both to the atomic and to the molecular theories (the latter being adopted throughout the remaining portion of the sheet); its specific gravity; the derivation of its name, many of which are very remarkable; the discoverer, and the date of its discovery; a brief description, stating whether the element is metallic, non-metallic, or gaseous, and giving its characteristic appearance; its specific heat; its solvents—hydrochloric, hydronitric, hydrosulphuric acids, alcohol, ether, &c.; its principal oxides, expressed in symbols; its melting point; general remarks respecting it, such as its electric conductivity, latent heat (the latent heat of fluidity being the quantity of heat which must be imparted to one gramme of a solid at its melting point in order to melt it without raising its temperature) in gramme-degrees of Person, malleability, tenacity, &c., and, finally, the sources from which it is obtained. In all works of this description their value is to be estimated only by their accuracy; and, where so many facts condensed into the smallest possible space are brought together, as in Mr. Bell's table, an opinion cannot be formed upon this point until it has been for some time in actual use. The circumstance, however, of its being printed by Messrs. Ireland, of Manchester, may be taken as a fair guarantee in this respect, and as the general form of the table is such as will be found generally convenient, it is undoubtedly entitled to extensive patronage.

AIR OR GAS ENGINES.—The object of the improvement suggested by Mr. John Pincheck, of Reading, is to effect greater economy, and also to increase the power obtained from engines in which atmospheric air and gases are exploded inside the cylinder by means of an electric spark, or by any other method. He connects the exhaust or discharge pipe of the cylinder with a condensing chamber, in a manner similar to that employed in ordinary condensing steam-engines. The heated air is condensed in the chamber by a jet of cold water, and by this means a vacuum is produced in the cylinder. The ordinary air pump is used to discharge the injection water. He does not limit himself to the use of jet condensers, but he also employs surface condensers to produce the same result.

CHINA CLAY AS A LUBRICATOR.—The employment of plumbago as a lubricator has long been known, but in many instances its high price has prevented its application, and to remedy the evil Mr. William West, of St. Blazey, has proposed to substitute kaolin (china clay) or mica, or a mixture of them, which he uses in combination with tallow or other fatty or oily matters. Coal or other tar is also usually employed, with or without other ingredients, according to the effect desired to be obtained. The proportion of the china clay or mica, or the mixture thereof, may be greatly varied, but as a general rule such substance or substances is or are to form the base or principal ingredient of the lubricating compound. The materials are mixed intimately together, applying heat when necessary in making the compound. The fatty and oily matters may in some cases be saponified, or have combined therewith alkalies or alkaline earths or oxides; other ingredients may be added to the mixture, but it is believed that compounds consisting of kaolin or mica, or mixture thereof combined with tar and tallow, or other fatty or oily matters, are the best suited for general purposes. Although the proportions of the several substances may be greatly varied, he finds kaolin or mica, 112 lbs.; tar, 6 gallons; and tallow, 10 lbs. to produce a good mixture.

CENTRAL AMERICAN ASSOCIATION (LIMITED).

Incorporated under the Companies Act, 1862, by which the liability of the shareholders is limited to the amount of their shares.

Capital £150,000, in 30,000 shares of £5 each.

(With power to increase.)

20,000 shares are taken, 4000 shares are reserved for allotment to applicants from Central America, leaving 6000 shares, for which applications are invited.

Deposit on application 10s. per share, and on allotment 10s. per share.

The board do not contemplate the necessity of any further call. The Articles of Association provide, however, that calls, if made, are not in any case to exceed 10s. per share, nor to be made at intervals of less than three months; nor can more than £2 per share be called without the sanction of a general meeting.

DIRECTORS.

GEORGE M. BOWEN, Esq., Consul for Nicaragua, Liverpool.

Captain BEDFORD PIM, R.N.

A. A. POLLOCK, Esq.

GEORGE SALMON, Esq.

GEORGE HENRY WALKER, Esq.

(With power to add to their number.)

BANKERS—Imperial Bank, Lombard, E.C., and Westminster Chambers, Victoria-street, S.W.

BROKERS—Messrs. Sawell Brothers, 14 and 15, Calthorpe-court, Throgmorton-street, E.C.

SOLICITORS—Messrs. Blischoff, Coxe, and Bompas, 19, Coleman-street, E.C.

SECRETARY (pro tem.)—Dr. Berthold Seemann, F.R.G.S., F.L.S., &c.

OFFICES.—4, WESTMINSTER CHAMBERS, VICTORIA STREET, S.W.

TEMPORARY CITY OFFICES,—31, THROGMORTON STREET, E.C.

The object of this company is to undertake on a more extended scale operations similar to those which have been so successfully conducted by the Foreign Lands and Mineral Rights Purchase Company, now about to be dissolved, viz.—to bring English capital to bear upon the resources of, and to assist in the development of enterprise in, Central America, by examining and acquiring properties of various descriptions, at a comparatively small outlay, with the view of turning them to a profitable account in such manner as may be deemed best in each particular case.

The natural wealth of Central America requires only to be known and appreciated by capitalists to enable it to become at once a source of considerable profit to both natives and foreigners. Gold and silver mines are plentiful, and their productiveness is sufficiently attested by such mines as those now in course of being worked by the Chontales Company.

That company was introduced last autumn to take over the mineral properties acquired by the Foreign Lands Company, and though the latter company is to receive, in effect, by way of royalty, one-third of the net profit of the Chontales Company, the shares of the Chontales Company have, from their issue, commanded a very high premium on the Stock Exchange.

The extraordinary mineral wealth of the country is, however, only one feature of Central America. Mahogany, cedar, and other marketable cabinet woods and timber abound. India-rubber, sarsaparilla, cochineal, vanilla, dyewoods, and other spontaneous productions, already form considerable articles of export. The cacao (chocolate) is the finest in the world, and when the Spaniards held the country the king's table was supplied from this source; the sugar is equal in quality to that of Jamaica; the indigo is the best of India; the coffee is already so favourably known in the market as "Costa Rica Coffee," that it needs no comment; cotton arrives at great perfection on the shores and islands of the Atlantic Ocean, a locality enjoying the advantage of being nearer England than even New Orleans; whilst cattle breeding is profitable, and capable of large extension. Add to this, the geographical situation of the country between two great oceans; its lakes and rivers affording facilities for internal communication, and the certainty of its being ere long traversed by a railway—the great highway of nations—connecting Europe and the whole of the Pacific, Australia, and Japan; and it will be seen that Central America holds out prospects the most brilliant to those who have the enterprise to develop its unbounded resources.

Various causes have hitherto combined to prevent these advantages from receiving the attention which they have so well merited. This company, however, believes that, having the confidence and goodwill of the Governments and people of Central America, it is in a peculiarly favourable position for acquiring valuable properties and privileges, and for organising arrangements for the efficient carrying out of any operations of the profitable nature of which it has thoroughly satisfied itself, whether relating to mines, or coco, coffee, and cattle estates, the extension of cotton cultivation, the export or import of different products, the making of roads, canals, and railroads, or the establishment of steam communication on the various rivers and lakes of the country. It is not part of the scheme or intention of this company to work any mines, or carry out any of the above operations, on its own account, or with its own funds; but, after investigation, to introduce and transfer them for development to capitalists, whether companies or individuals, on advantageous terms, by the reservation of a royalty or otherwise.

The directors have secured the valuable services of Dr. Seemann and Capt. Holman, both of whom have already proceeded to Central America, with instructions to examine,

and, on approval, to enter into conditional contracts for the Limon and Matagalpa Mines, and other properties which may be offered to them on behalf of the company. Captain Holman is a mining engineer of known skill and ability; whilst Dr. Seemann, whose eminence as a scientific man and naturalist is European, and who, from his extensive and intimate acquaintance with tropical countries, was selected by our Government as one of the Royal Commissioners when the Fiji Islands were offered as a crown colony, was considered eminently suited to be entrusted with the conduct of the important negotiations contemplated by the company, and the investigation of properties eligible for its purposes.

The Limon Mine, in New Segovia, Nicaragua, is a silver mine, famed for its richness, belonging to General Martinez, the President of Nicaragua.

The Matagalpa are gold mines, in Nicaragua, reported to be scarcely inferior to those of Chontales.

These mines are already under offer to the company, through Capt. Pim, and it is believed that no difficulty exists as to their immediate acquisition if they are thoroughly approved of by the company's agents.

The directors purposely abstain from offering any estimate of the profits to be made by this company, for it would not be possible to do so with any sort of accuracy.

The shares of the Foreign Lands and Mineral Rights Purchase Company, with £145 paid up, have been selling at £700 per share and upwards. That company confined itself to a mineral undertaking alone, and in a single locality. The Central American Association, launched under favourable auspices, with a practised management, and with a much larger area of operations, may, it is thought, fairly look for results equally satisfactory.

No promotion-money has been, or will be, paid; and the directors are to be remunerated only by a percentage on surplus profits beyond 5 per cent.

Prospects and forms of application for shares may be obtained from the solicitors, brokers, and at the offices of the company, where also copies of the Articles of Association may be seen. In case of no allotment of shares being made, deposits will be returned in full.

As two-thirds of the shares have been already taken, the usual formal assurance that no allotment will be made except in the event of an adequate amount of the capital being subscribed for is unnecessary.

MEMORANDUM OF ASSOCIATION OF THE CENTRAL AMERICAN ASSOCIATION (LIMITED).

1.—The name of the company is the "Central American Association (Limited)."

2.—The registered office of the company will be situate in England.

3.—The objects for which the company is established are—

The examination of mineral and other properties situate in Central America and the neighbouring islands.

The acquisition of mineral and other properties there, with the view of re-sale of the same.

The developing for sale of mineral and other properties acquired by the company.

The preparation for sale, and the sale or disposal, of the properties acquired by the company.

The negotiation of loans for the different Governments of Central America and the neighbouring islands.

The letting, selling, or otherwise disposing of any rights, concessions, privileges, or properties acquired by the company.

The doing of all such things as are incidental or conducive to the attainment of the above objects.

4.—The liability of the members is limited.

5.—The capital of the company is £150,000, divided into 30,000 shares of £5 each.

FORM OF APPLICATION FOR SHARES.

(To be retained by the bankers.)

To the Directors of the Central American Association (Limited).

GENTLEMEN.—Having paid to the Imperial Bank the sum of £1, being a deposit of 10s. per share on shares, which I request you to allot me in the above company, subject to its Articles of Association, and to the terms of the annexed prospectus, I hereby agree to become a member of the company, and to accept such shares, or any less number that may be allotted to me, to pay the further sum due on allotment thereof, and to subscribe the Articles of Association if and when required. And I request that my name may be placed on the Register of Members.

Useful signature

Name in full</p

NOTICES TO CORRESPONDENTS.

* Much inconvenience having arisen in consequence of several of the numbers during the past year being out of print, we recommend that the Journal should be regularly filed on receipt: it then forms an accumulating useful work of reference.

MORE SHARES AS SECURITY FOR LOANS.—Messrs. Watson and Cuall, in reply to "Lex" in last week's Journal, are perfectly correct in their view of the subject mooted. A lender of money on the security of mine shares, whether in a scrip or cost-book company, is *de facto* as much a trustee for the time being as an acting executor under a will, and amenable to the law for any waste or damage incurred by his carelessness or mal-practices. He cannot legally sell or lend, to benefit himself, the shares deposited with him and entrusted to him as security for a loan; and when, as is usual, he stipulates for liberty to sell and pay himself on a probability of such shares depreciating in market value below the amount of his lien, it is, in case of such contingency, his bounden duty to protect equally the borrower's interests and his own by selling. He has no right to sacrifice the borrower's interests, and could not legally recover any loss entailed by his own wilful default or neglect. The borrower, however, has a remedy: he can, by action, recover the difference between the lender's claim and the highest market value of the securities during the period they were ostensibly, or remained really, in his possession.—Q. C.

WHEAL TRELLAWYNS.—Can anyone inform me the reason the shares in this mine have late so declined in value? A few months since they were at 197, to 201, and are now offered at 145. Is it because the prospects at the mine are not so good as they were, or is it through some other cause? I have every reason to believe it is not in the mine, but that there must be some other cause, as the mine has not declined in value.

—INQUIRER.

A NEW DISCOVERY OF GOLD IN CARNARVONSHIRE.—I have just seen a paragraph in last week's Journal under this heading, and respecting which a word of caution will not be amiss. Having spent several years in Wales, my occupation has given me some experience in Welsh gold as well as other metals. I have from time to time made several assays from different places in Carnarvonshire, but as yet I have never found any gold that would pay for working. Query, might not the gentleman, in looking through his glass, have seen a few specks of yellow metal? Mining I believe to be still in its infancy in many parts of Wales, but my advice to all speculators in gold mines is to get some competent person to assay the quartz; this I am sure would be the means of saving many thousands sterling, which might be laid out to much greater advantage in Wales in legitimate mining.—JAMES M. WILLIAMS: *Mona Assay Office, Amroth, Anglesey*, March 19.

WHEAL UNITY CONSOLS.—I was much startled and surprised to see the operations in Wheal Unity Consols suspended. Not long since, in the eastern part of the mine, on the Rosewarne lode, ore was discovered cropping up above the 60, and on sinking the eastern shaft to the 70, and driving a level west, about 4000' worth of ore was raised and sold. There is a very kind lode in the present bottom of the shaft worth $\frac{1}{2}$ ton of good grey copper per fm., and with indications of being near a rich deposit of copper ore. If this shaft were sunk to the 90, and a level driven west, sufficient ore ground would be laid open to fully pay the costs of the mine. I have every reason to believe that there is a good mine in Wheal Unity, and am satisfied that a small outlay will be brought into a flourishing state, and the shareholders will reap the reward they so much merit: 1000/- will be quite sufficient to sink the shaft to the 90, and drive a level west to the cross-course, which has proved so rich in the adjoining mines.—TRAVELLER.

EAST DEVON GREAT CONSOLS.—The management of the accounts of this mine has been anything but satisfactory. While calls have been met by the honourable shareholders, several parties have been excused payment, as the last inexplicable statement of accounts shows, or they would have been made to pay them, and the present call of 4s. per share would not have been necessarily made. The original number of shares was 4000; at different times, unknown to the shareholders, they have gradually grown less, now 3780, and at no meeting held in the Cathedral-exe, Exeter, has any reason been given why this diminution of shares should be, or why parties, shareholders, have not been made to pay up their arrears of calls, 300/- and upwards; this amount alone would nearly pay off the liabilities; and upon the face of this, at the last meeting, a call of 4s. per share was made, amounting to 7561. I say, this requires explanation; also of the defaulter, and of the diminution of shares, and without this I do not intend paying the 4s. per share call.—A SHAREHOLDER.

DYNGWY MINES.—Can any reader oblige me with some information as to the position and prospects of these mines?—U. F.

STRAY PARK.—I should feel obliged if any reader can explain the serious fall in these shares during the last three or four years—I cannot. In 1862 they were at about 46/- per share, and are now at 4/-; the calls then were about the same per share as at present, and the prospects certainly no brighter than now. Of the 920 shares into which the mine is divided, over 700 are held by the same shareholders who then held them; so the value appears to have been driven down in the market by the forced sales of the shares of the small holders and the spathy of the large ones.

An addition of one-third to the number held by the principal adventurers would have cleared the concern of all doubtful holders, and sustained the price at a reasonable figure. Any discovery would immediately send these shares to a higher figure than ever they have previously attained; and I have noticed in mining, that the moment shares in a respectable worked mine are being given away almost by their holders, a sudden discovery is made, and those who have supported the mine during its adversity see their profits divided amongst those "who toll not honestly," but too frequently have means of gaining information when to buy and when to sell their shares. Those who remember East Caradon at 5s., and Tinacross at 4/-, and Great Wheal Vors at any price you liked to give, may yet see another glorious addition to these successful mines, and the anxious sellers of to-day become more anxious buyers. The present ridiculous price almost throws doubt on the management of the concern, but if the adventurers would only attend at the next meeting they would learn that there is every prospect of the mine ultimately taking its proper position amongst its (at present) more fortunate neighbours.—ONE WHO WAITS.

Received.—"Lover of Mining" on New Features in Derbyshire Lead Mining—shall appear next week.—"J. H. H." No.—"Reader" (Bristol)—"L. M." (Neath).

manner the utter untruthfulness of statements that have been published in England from American sources, that the position of the operative iron-makers is so vastly superior in that country compared with this. Mr. McALLISTER shows, although not, perhaps, quite so concisely, that the sole object of decoying workmen from England is to lower the rate of wages in America, for the benefit of the American ironmasters, and of them alone.

After repeating the opinion of Mr. S. J. REEVES, that—

"The question arises, and should elicit this serious consideration of this meeting, whether manufactured iron can be afforded at lower than the present ruling rates? If not, then the American mills must either cease work or lower the wages of their employees. The margin for diminishing, however, is very small. It comes then to this, that wages must be reduced below the living rate of sustaining a good class of workmen, or the business of supplying the American market with rails and bar-iron must be yielded to foreigners. There is one way by which this disastrous result may be avoided, and that is by increasing the duty on imported iron by Act of Congress. Our only security under high taxation and high cost of living lies, therefore, in the expectation of procuring an alteration of the tariff laws, and, perhaps, some abatement in the internal revenue tax upon iron."

He reports that the statistics of the iron trade for 1865 will show a material decrease in the production of iron compared with the returns of 1864.

For several months during the past year a majority of the rolling-mills, forges, and furnaces, altogether or in part, ceased operation. This caused temporary demand for iron, which resulted in the revival of the trade towards the close of the year, and many works resumed operations; owing, however, to the great cost of production, caused by the high price of labour and increased taxation, the products could not be sold at remunerative prices in a market regulated by a foreign supply. As a consequence, a large number of rolling-mills in Pittsburgh and vicinity have ceased operations since the beginning of the present year. The proprietors of many establishments which have been standing idle since last summer express satisfaction that they were not tempted into starting their fires by the delusive promises of a remunerative trade held out last autumn. An examination into the effects of these adverse influences upon the production of the iron and steel works is then given, which proves the trade throughout the country to be in an extremely unsatisfactory condition; and with regard to the steel manufacture, he remarks that as it is a comparatively new business in the country it has felt the injurious effects of foreign competition and increased home taxation very sensitively. Three establishments in New York have recently suspended business, while few of the works are producing more than half their capacity. During the fiscal year ending June 30, 1865, nearly 10,000 tons of steel were imported, or about two-thirds as much as the total production of the country last year. Since then the importation has increased, and orders for least 10,000 tons of steel have gone abroad during the last three months. It is not surprising, then, that English makers are calculating upon doing a heavy trade with this country in steel during the present year.

In the discussion which followed the reading of the report Mr. NYSTROM described his pneumatic process for refining iron, recently patented, and Mr. BARRETT eulogised the resources of Colorado territory, and a committee was appointed to draw up resolutions, which were carried unanimously. In one of them it is stated that "the bankruptcy, waste, impoverishment, and suffering which four times in less than half a century have cursed the American people as the punishment of their trial of international free trade before they were prepared for it, should suffice as a warning against a repetition of the deadly error;" whilst another alludes to the free trade policy robbing the American mechanic and labourer of their natural right, and leaving those now seeking employment to beg from door to door for that labour which makes rich those who aided in the endeavour to destroy the Republic.

The *Iron Age* (New York), commenting upon the proceedings, remarks: "It is hoped that the meeting has been productive of much good in freshly bringing to the attention of Congress the present needs of the industrial interests of the country, which is to hit a portion of the burden of taxation from the shoulders of American farmers and manufacturers, where it now rests, and place it upon the broad shoulders of the British manufacturers, where it rightfully belongs. In other words, to protest American free trade and tax British monopoly."

EXPORT OF IRON AND STEEL.—The immense development of this trade can only be appreciated when we cast a retrospective glance at its progress since 1850. In that year the exported value of the iron and steel was 5,350,056/-; in 1851, 5,830,370/-; in 1852, 6,684,276/-; in 1853, 10,485,422/-; in 1854, 11,674,675/-; in 1855, 9,465,642/-; in 1856, 12,966,109/-; in 1857, 13,603,837/-; in 1858, 11,197,072/-; in 1859, 12,314,437/-; in 1860, 12,154,997/-; in 1861, 10,326,646/-; in 1862, 11,365,150/-; in 1863, 13,150,936/-; in 1864, 13,310,484/-; and in 1865, 13,451,445. Comparing 1865 with 1850, we see there is an increase of 8,101,389. It was in 1853 that the exports experienced their most rapid expansion, but even upon that year 1865 showed an advance of 2,606,023. If we analyse the exports of 1850 and 1865, we arrive at the following results:—

	1850.	1865.
Pig and puddled iron.....	£8,09,074	£1,59,103
Bar, angle, bolt, and rod, iron.....	2,801,043	{ 2,213,123
Railway iron of all sorts.....		{ 5,51,296
Iron wire.....	66,573	450,639
Cast-iron.....	215,932	77,124
Hoops, sheet-iron, and boiler-plates.....	1,654,410	{ 1,597,604
Wrought-iron of all sorts.....		{ 2,494,871
Old iron for re-manufacture.....	50,876	12,688
Unwrought steel.....	393,748	779,487
Total	£5,350,056	£13,451,445

There has thus been an immense advance in every department of the trade, with the exception of the comparatively insignificant item of old iron for re-manufacture. Further, it will be seen that the total value of the exports was in 1865 larger than in any former year, excepting 1857.

CONVERSION OF CAST-IRON INTO CAST-STEEL.—A new process, for the rapid conversion of every mass of cast-iron into cast-steel, homogeneous and of great purity, has been thus described by Mr. Galy-Cazalat, in a memoir addressed to the Academy of Sciences:—"Cast-steel is a combination of iron with some thousands parts of carbon, and cast-iron consists of iron and about 5 per cent. of carbon, alloyed with silicon, sulphur, and other metalloids. Hence, it results that steel is obtained by causing currents of gas containing oxygen, and particularly superheated steam, to pass through a bath of cast-iron in fusion. In traversing the mass of molten metal the steam is decomposed; its oxygen burns the carbon and oxydises the iron, while its hydrogen takes up from the metal its sulphur, phosphorus, and other metalloids, which would render the steel brittle. In proportion as the cast-iron loses its carbon its temperature rises rapidly beyond the melting point of the steel. When the colour of the flames, which rise from all parts of the bath, indicates a suitable degree of decarbonisation, the steel is then run into the mould. This system, the most simple and less costly, of fabricating steel in large masses, was imagined by Mr. Galy-Cazalat, and experimented upon at the Palais de l'Industrie, during the Universal Exhibition of 1855. Since that period he has operated on a large scale, either in a crucible containing 5 tons of cast-iron, or in a reverberatory furnace, of improved construction, the flame of which produces the steam necessary for the decarbonisation. Unfortunately, the characters indicative of the precise transformation of the cast-iron into steel being uncertain, we obtained sometimes pure iron without carbon, and at other times an alloy of oxide of iron and too much carbonised steel, according as we allowed too much or too little steam to pass through. This inconvenience was common to my process and that of Bessemer, who, in 1856, took out a patent for making steel by causing to pass through the cast-iron, in fusion, currents of air compressed at high expense by machines thirty times more costly than the reverberatory furnace, which produces the steam. Lastly, for the last three years the inconvenience arising from the uncertainty as to the number of minutes after which the decarbonising currents of air, steam, or rather oxygen, must be stopped has no longer existed; the manufacture is regular, and we obtain always common steel by decarbonising completely the mass of melted cast-iron, either by air or by steam, and then adding 10 per cent. of spatic cast-iron, to restore to the iron the carbon that it requires to form steel. This steel, actually used for railway bars, requires, however, to be recast so as to become homogeneous and of superior quality, and this second operation, which is carried on in crucibles containing 44 lbs., doubles at least the cost of homogeneous cast-steel."

FABRICATION IN LARGE MASSES.—In reflecting upon the chemical reactions which operate in the crucibles, the author of the memoir perceived that for these reactions to be brought into play it is requisite and sufficient that common or heterogeneous steel be maintained, during at least fifteen minutes, in quiet fusion, and at a temperature of about 2700°; the metallic bath then becomes homogeneous, and its particles acquire a regular aggregation. Under these two conditions the oxygen abandons the oxide of iron to combine with the free carbon in the steel, whence it is disengaged either in the state of carbonic oxide or carbonic acid gas. The reverberatory furnace has been perfected so as to be able to arrest the currents of decarbonising gas, without their discharging offscends being obstructed by the liquid metal getting into them. It suffices, then, to shut the cock which lets the superheated steam into the bath, the mass of which is no longer agitated, and to open another cock, which sends a jet of steam into the chimney, so as to quicken the combustion on the grate of the furnace, which speedily reaches a very high temperature.

CASTING STEEL UNDER HIGH PRESSURE.—We are aware that pieces of steel cast in moulds are full of cavities which considerably weaken their tenacity. In order to give to the metal all its resistance, it is generally, after having been suitably heated, submitted to the pressure of a roller, or to blows of a steam-hammer, which cause the particles of the metal to adhere closely, and the bubbles to disappear. The rolling and hammering being very costly, and often impracticable—as, for instance, in the case of steel cannon with trunnions and handles, Mr. Galy-Cazalat has imagined to cause these cavities to disappear by submitting heavy guns to great pressures produced by gases, while the metal is still in a fluid state, in the moulds of sand, firmly bound by strong frames of iron of suitable resistance. For this purpose, immediately after the casting of the complete cannon, the whole is covered hermetically by a metallic cap, screwed firmly to the framework of the mould. This cap carries a vertical tube, furnished with a cock at the lower extremity, and closed at top by a less resisting membrane, or safety diaphragm. It contains 6 to 10 grammes of powder, without sulphur, composed of 80 parts of saltpetre and 20 parts of charcoal. When the cock is opened the powder falls upon the metal, is ignited, and the combustion produces rapidly 10 litres

of gas for each gramme of the mixture of saltpetre and charcoal. The imprisoned gas under the cap exerts on the surface of the liquid steel a pressure, which is transmitted simultaneously and regularly through the entire mass of the cannon, effectually effacing the bubbles, and increasing the tenacity of the metal, which is the same throughout.

REPORT FROM SCOTLAND.

GLASGOW, MARCH 21.—With the exception of last Thursday, we have had a rather quiet, if not flat, Pig-Iron Market, and yesterday it closed without any business being reported. This looks as if the "bears" were getting wearied of their losing game, and were abandoning it to the "clique" of Englishmen who hold more warrants than they will ever dispose of at a premium. This cluster of friends are, of course, still in the market by their agents, and are willing buyers; but after the *exposé* of their practices, and the details of their *modus operandi*, the bait is now losing all its attractions, and none will venture in where all get burned. Much has been said and written against the "clique," but were it not for the "bears," that body could not hold together for a month; and it is said that one or more of our Glasgow banks, with whom warrants had been pledged, are getting them to keep for their pains. There is a kind of idea that there will be no more "bearing" by the trade, and if that should turn out true, the market will be brought back to its normal position within a period of 30 days. It is a pity that financiers, under the temptation of 15 or 20 per cent. interest, should lend themselves to such a questionable method of increasing their dividends. The press has well spoken on the question, and if parties will still go in and prolong this heartless game of chance it is at their own peril. They know they should not do it, have been fully warned, and if they do persist, and lose, as losses they must, they will have to bear the loss unpitied and alone. The spring orders for Malleable Iron, so far as they have been placed here, have gone to the first-class firms, where machinery is in full motion, while the orders usually booked by the second-class makers are going to the South, and they are working short time. Our founders are also getting short of orders, on account of the high price of finished castings, caused by the inflated price of the raw material. English pigs are thus finding their way here in unusually large quantities, and this is assisting founders to meet their engagements in a way. The shipments of Pig-Iron last week were 10,758 tons, against 13,672 tons last year; total till this date, 102,818 tons—decrease 16,102 tons. There has been less business done during the past week, prices fluctuating between 7s. and 7s. 6d. cash. To-day the market opened depressed, 7s. 6d. to 7s. 3d. cash accepted, but improved at the close, when 7s. 10d. cash, and 7s. 6d. a month, was paid.

COAL.—The numerous meetings of miners, and their frequent half-holidays, are rendering this article both scarce and dear. The price, consequently, keeps advancing, although the exports for the week are slightly below the corresponding week of last year, the figures being this year 17,310; last year, 20,590 tons. The high price of cutting coal now paid, and the prospect of higher prices being charged immediately, is enhancing the value of coal to the producer so much that its effects are being felt here. Shipping qualities, formerly saleable in Glasgow and Greenock at prices which could compete with other ports, are now all but unsaleable at the increased prices, and the vessels are going on to Troon to ship. This is damaging the trade, and the colliers should take care of what they are about, or else a number may have to leave the central districts of Lanarkshire. Masters, in order to stimulate the men to diligence, instead of counting their work by hatches are paying them by the ton, and thus they are beginning to get nearly as much in the eight hours as they formerly got in the ten or twelve under the hatch system. This will help to neutralise the bad effects of the restricted hours to the master, and afford the expert worker the means of benefiting himself under the restriction.

The perturbed state of the mining districts in the middle and upper wards of the shire, caused by the periodical visits of itinerant agitators, has caused the sheriff-principal of the county to issue a warning proclamation, and dissuasive, against obstructing or intimidating the miners while at work. Within the last few weeks the masters have been annoyed every other day by their men playing out, to give audience to a parcel of wretched mountebanks, who are living jollily themselves at the expense of those whom they are misleading. This proclamation by the sheriff will, no doubt, prove a corrective, if it does not open the eyes of the miners themselves to the folly of any longer following their leader, without once waiting to think for themselves. At their meeting at Wishaw, the secretary emitted some curious statements of how the miners in other districts secured their advance. The masters in Clackmannan are averse to the eight-hours' movement, but the men are reported to have gone to the employers, and to have said—here are the words of the polite secretary:—"We do not care for you; we are members of the National Association . . . and will get 12s. 6d.; so you can keep your pit till once you give us what we ask." (Applause.) Men who could quote such examples for imitation, or applaud statements so essentially insolent, should certainly be placed under legal surveillance. Various reports were given in regarding the progress of the eight-hours movement, and a vote of support to those on strike closed the proceedings.

At a meeting of the subscribers to the Guarantee Fund for inviting the British Association to Dundee—Provost Parker in the chair—it was agreed to request the Town Council to forward the invitation to the Association to meet there in 1867.

LIABILITY OF AN IRONMASTER FOR INJURY FROM SPARKS FROM A FORGE.—In the Court of Session, last week, a case came before Lord Kinloch, for trial without a jury, in which Dennis Holt, labourer, Coatbridge, son of William Holt, also labourer there, was plaintiff, and Messrs. Martin and Son, ironmasters, Merrystown, Coatbridge, were defendants. The issue put before his Lordship for trial was—"Whether, on or about the 4th day of May, 1865, the pursuer, Dennis Holt, when in the employment of the defendants, at their ironworks as Merrystown, Coatbridge, received severe injuries in his left eye, which deprived him of the sight thereof, in consequence of the want of proper appliances to protect him from sparks caused by the working of a forge hammer, through the fault of the defendants, to the loss, injury, and damage of the pursuer?" Damages were laid at 300/- sterling. After receiving evidence, and hearing parties, the Lord Ordinary made a judgment, but judgment not yet given.

SCOTTISH IRON MOULDERS' UNION.—A *savoir et concert*, in connection with the Scottish Iron Moulders' Union, took place in the City Hall, Glasgow, which was filled in every part. Mr. A. Campbell presided. Mr. Steel, secretary, read a report, which showed that the Union was inaugurated thirty-five years ago with a membership of 30, and it now numbered 3000. At the present time its funds amount to 10,6

as the piers are extended a fine bay will be formed near the mouth of the river. The formidable point at Bill Quay is also being removed, and this alone is a work of the greatest importance, and when completed will effect a great improvement in the river.

Saturday next is the usual day for the yearly binding of the coal miners of the Wear, but there is very little left over for that day, the great majority of the men having already been engaged. Generally speaking, the former rates have been continued, but in many cases a slight rise has taken place, and the general tendency has certainly been upwards. An excellent understanding continues to exist between the men and their employers, and the prospects for the ensuing year is very good for all parties concerned.

The Northumberland and Durham Miners' Permanent Relief Fund is becoming one of the most useful and prosperous societies in the district, and it is gratifying to find that the coal owners have at last agreed to give it the support which has so long been expected from them. Already 8000 members are enrolled in the society, and no less than 3000l. has been distributed among the miners' widows, orphans, and disabled members, a large surplus remaining in hand.

Mr. Hugh Taylor, J.P., is the President, and it is hoped that are long every coal owner in the two counties will be contributing to its funds. The agreement which has been entered into is that the coal owners, "having regard to the wisdom of the miners providing a fund for the maintenance of widows and orphans left destitute through fatal accidents in our mines, and believing that the Northumberland and Durham Miners' Permanent Relief Fund is effecting this object safely and prudently, hereby agree to aid the said institution by paying into its funds not less than 20 per cent. on the sum subscribed annually by the miners at our respective collieries, so long as the affairs of the society are conducted to our satisfaction;" and this has been signed by the owners of about 30 of the most important collieries, additional signatures being daily obtained. Those who have already signed are—Messrs. Hugh Taylor, for East Holywell, Heswall and Shotton, and Ryhope ; H. Hunt, Pease Main ; John Joyce, Tanfield ; Edward Joyce, for Beesope and New Pelton ; C. J. Lamb, Backworth and West Crailington ; J. Straker, Coquet and North Seaton ; W. Stobart, Monkwearmouth ; W. Hutchinson, Pelton ; R. O. Lamb, Westgate ; H. S. Stobart, North Bitchburn ; W. Kimpton, Washington ; Arthur Pease, the Peasey, West Adelaide and St. Helen ; R. O. Lamb, Crailington ; C. M. Palmer, John Bowers and partners ; W. Greene, Jun., Garesfield ; G. Gowland, Thornley ; T. M. Reay, Whitworth and Spennymoor ; J. Marie, Bolckow and Vaughan (Limited) ; W. Hunter, Sacriston, Charlaw, and Nettlesworth ; J. T. Ramsay, Blaydon Main ; A. Potter, Stella ; and J. Sowerby, Burnopfield.

The society may now be considered as firmly established, and ultimately it will prove of the greatest importance and advantage to the miners and their families.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

MARCH 22.—The demand for Finished Iron, both in North and South Staffordshire, is slack. As the end of the quarter advances buyers naturally avoid giving orders if they can, so as to get longer credit, and, as the demand has been decidedly slack for the last month, the order-books are now getting very bare. The dulness of the demand, however, affords no ground for anticipating a decline in prices, since pig-iron and wages are both exceptionally high. The causes of the present slackness are mainly two—the diminished demand for plates for shipbuilding, and the decreased shipment of English iron to the United States. As has been often remarked in this letter, the vicissitudes of the iron trade are almost always mainly dependent on the trade with the American States. There is one other consideration of some importance. The price of iron, chiefly owing to the advanced rate of wages in this country, is higher than it has been on an average for some years past, and hence Belgian, and continental manufacturers generally, are able to circumscribe within narrower boundaries the range within which we can compete with them. The Preliminary Meeting of the Ironmasters' Association will be held next week, but no alteration in prices appears at all probable. The Hardware Trades are, on the whole, active. The East Indian market is somewhat improving, but the South American and West Indian and the Australian demand is flat.

The question of the adoption of the Factories Acts in Birmingham and South Staffordshire is gradually attracting increased attention. There are many difficulties in applying these Acts to the hardware trades, which are largely carried on by little masters, who are really working men, employing one or two boys or journeymen, and it is in these cases, which are the most difficult to reach, that the greatest necessity for supervision and restriction exists. Perhaps the trade which might have been regarded as most difficult to reach is that of the nailers, whose shops cost only a few pounds, and whose children are largely employed at a very early age. It is, however, very satisfactory to find that the working nailers seem favourable to Government interference, and at a meeting at Bromsgrove, on Monday evening, at which Lord Lyttelton presided, and which was attended by about 600 working men, the speakers, who belonged to that class, were very favourable to the regulation of the trade by legislation. One of these men really hit the nail on the head by referring to the employment of boys as young as from six to seven years, and said "If children were kept from work till they were eleven years old we should have a better race of men," and the meeting cheered the observation. A resolution was passed that no female should be allowed to enter any workshop until she was ten years old, and from ten to thirteen should be allowed to work only half-time. It was suggested that boys should be allowed to begin at nine years, but the strong voice of the meeting was in favour of ten, which was adopted as the minimum age for both sexes. It was also agreed that all women, and young persons of both sexes, should not be allowed to work more than nine hours a day, and those hours to be between seven in the morning and seven at night. As to education, it was agreed that children between ten and thirteen years old should have two hours and a half of schooling in the day time, and young persons from thirteen to sixteen three hours a week in a night school. With a view to prevent youths becoming free agents at too early an age, it was agreed that they should be apprentices to their parents or to a master to the age of eighteen. These resolutions had in the main been previously adopted between a meeting of men and masters. Some difficulty was felt as to the size of the shops, they being at present very small.

At the recent Stafford Assizes the sad accident by which eight persons lost their lives in the shaft of the colliery of Messrs. Nock, near Dudley, in November, 1864, came before the Nisi Prius Court, in the shape of an action by the widow of one of the men who were killed, and who claimed compensation for his death on the ground that the accident arose from the neglect of the proprietors. It may be remembered that a subterranean fire was burning beneath the surface, and that this caused the pit frame to sink from time to time, and it was supported by rather gingerly expedients. The result was that the pulley, getting out of the centre line, the winding-chain caught on the point of one of the horns of the drum, and falling off as it revolved, broke by striking the edge of the axis, and the cage, with eight men and boys, fell to the bottom. Mr. Baron Pigott summed up favourably to the plaintiff, but the special jury gave a verdict for the defendants. After the accident the earth was removed, and fire, which was near the surface, extinguished, and Mr. Baker, the Government Inspector, said this could be done for about 10L.

DERBYSHIRE, YORKSHIRE, AND LANCASHIRE.

MARCH 22.—There is no alteration in the state of the Iron Trade in Derbyshire, the majority of manufacturers being well supplied with orders, which will last for a considerable time, thus ensuring full work for all the hands employed. The same may be said with regard to the colliers in the same district. In the South Yorkshire district the iron trade has been somewhat disturbed during the past week. The men at the extensive works of the Messrs. Dawes, at Elsecar, gave notice, rather more than a fortnight ago, that they intended leaving, unless the iron was changed. The notice expired on Saturday, but the men, at the request of Mr. G. Dawes, agreed to go to work on Tuesday, and to do so up to Easter, when a change would take place. The furnaces were lighted on Tuesday, and a good number of workmen took their usual places. There is a marked improvement in the state of the Coal Trade in South Yorkshire. During the week there has been a better demand for house coal for the London and southern markets, whilst still larger quantities of steam coal have been forwarded to Goole, Grimsby, and Hull. The trade to those ports is largely on the increase, and there is every probability that as the season advances the export orders for the North of Europe will be greatly in excess of what has been sent in former years.

At the various shipbuilding yards on the Mersey business is resuming its wonted appearance, and there is every prospect of a very brisk trade. The demand for iron-plated and shield-covered ships is on the increase, and the best firms have orders on hand that will last them a considerable time. There is also a larger quantity of iron being disposed of at the port for home consumption and exportation than for some time past.

As noticed some weeks since, the Prince of Wales Mining Company has come to grief. To those interested, the winding-up of the company has not been unlooked for, but it was generally supposed that the evil day would have been put off, so that increased capital, and the sanguine expectations of shareholders, would have kept the mine afloat. Such, however, has not been the case, and the mine has been placed in such a position that it is to be feared others will be obliged to follow a similar course. At an extraordinary meeting of the Prince of Wales Company, held at Sheffield, on Wednesday, it was agreed that the company, which had spent nearly all the shareholders' capital, with the exception of what would meet their liabilities, and as there was no prospect of the mine becoming profitable without a larger outlay than the shareholders would be willing to subscribe for, it was agreed that the company should be wound-up. It was truly stated that the mine, notwithstanding a large outlay for some years past,

had in every way turned out unprofitable. Everything possible has been done by the managers and officials to recover what is known as the "gold shoot," a rich lode, which would have proved highly lucrative, but without meeting with it. Under the circumstances, as stated by the Chairman, it was the duty of the company to stop short whilst they had sufficient capital left to meet their liabilities, and to maintain the high character for honour and integrity which the company had long enjoyed. After considerable discussion it was agreed that the company should be wound-up under the Companies Act, 1862.

The Chesterfield and Midland Silkstone Colliery affairs are still in Chancery, but a move will be made shortly by the official liquidator for the purpose of realising some of the assets of the company, and effecting the sale of the plant. The creditors are looking up to the Chancery proceedings as being likely to turn out much better than anticipated. The works always involved a heavy outlay, and the cost of the plant has been something enormous, and yet they failed to get a complete mastery of the water. It is rather remarkable that whilst this mine was always overburdened with water, several in the same locality are not troubled with the watery element to one-half the extent.

The Tapton Coal and Iron Company are progressing satisfactorily with their pumping operations. The ripping of the old shaft, as to make it wide enough to admit of double cages, is being carried out with expedition, the only difficulty is in getting the water down fast enough. The company are continuing the driving of the level from the Newbold to the Tapton works, and when completed it will be used for ventilation and the conveyance of minerals to the Locksford Colliery; and, there being a siding running from the works to the main line of the Midland, the company will save a vast amount of cost in cartage from the Newbold Pits to the Chesterfield Station. The company have an excellent bed of coal which they use for coking purposes at their Newbold works; and, as about 40 coking-ovens were left by the late Mr. R. Stephenson, the proprietor of the colliery, these will, in due season, be brought into operation, when the company will be able to carry on a large coking trade.

The Husband Lane Colliery, near Chesterfield, which has been stopped some time, is about to be re-opened. The proprietor is Mr. Senior, of Barnsley, who is now working a bed of the Danston coal, in the neighbourhood of Chesterfield.

In the Merton district, on the Erewash Valley, the greatest activity is prevailing, and the Clay Cross Company are preparing for the carrying on of a large trade there. Buildings for the residence of the workmen are being erected by the company, and private capitalists are also erecting dwellings in the locality; but, notwithstanding, it is anticipated that arrangements will have to be made for the daily conveyance of workmen from Clay Cross to and from Morton, after the fashion of the Staveley "Irish mail."

The reports from the Peak mining district are more encouraging than of late. The Mill Dam Mine, which stands at the head of the lead mines worked by a public company, will shortly pay another dividend to its shareholders. The vein in the Mill Dam Mine proper has been worked, but the company having secured other mining adjoining, they have a large take under their direction. They commenced driving a level some time ago from the Mill Dam to the Smithy Col. or Greenhill Mine, and having cut into the vein, they are getting a fair quantity of ore. The directors have latterly adopted piece work instead of day work, and when the last measure was weighed up the miners obtained better wages by piece work than they had paid them by the day. The system, too, has been very beneficial to the company, and has proved more satisfactory than day work. The vein is of great width, and being soft, it is easily hewn out. The Eyan Mine is looking better, but the cost of the dead work done has been a great drawback upon the prospect of dividends. The original shareholders, however, have been well paid by the former produce of the mine, and it was not to be expected that in the nature of things it would continue for ever.

The prospects of the Moss Rake and Lead Ore Smelting Company are very satisfactory. It is always a healthy sign when the shares of a mining company are largely taken up by parties in the locality. Independently of the mine, immense profits may be made by the smelting of ore. For many years past the lead smelters have had a monopoly amongst themselves. Whenever there was a measure of ore there was a private understanding arrived at that only so much should be offered, and as all the smelters were of a similar tale, there was no alternative but to sell. The projected company may have some effect upon this system, which has always been a great bore to the proprietors of mines.

In another letter we hope to be enabled to announce the purchase of several lead mines by a party of gentlemen from Manchester, who are largely interested in mining.

A man named William M'Williams was fined 12s. and costs, on Wednesday, for annoying and calling some colliers, who were in the employ of Mr. North, "black sheep." There had been a strike at the colliery, and the prisoner had refused to return to work.

REPORT FROM MONMOUTH AND SOUTH WALES.

MARCH 22.—The Iron Trade of South Wales continues to be characterised by quietness, and the business transacted is on a limited scale. This is partly attributable to the near approach of the end of the quarter, and partly to the fact that the demand from some of the markets is not so large as was expected a few weeks since. The latest advices from New York are to the effect that a commercial crisis is feared; and if this takes place a serious check will be given to the demand for iron from this country. A few enquiries have been made on Canadian account, and the Russian trade is likely to open under favourable circumstances. The reduction in the rate of discount has had the effect of sending some home contracts to the market, but money must come still lower before any material influence is exercised on the demand for iron. Pigs are selling freely, and it is clear that quotations will be fully maintained for the next two or three months. The tin-plate works are well employed, and proprietors are well placed for orders. In steam coal there is an excellent business doing, and the varied character of the weather of late has enabled exporters to ship a large quantity. The consumption of house coal is below the average, and many of the collieries are working short turns.

The Association of Ironworkers, or better known as the "Union," does not appear to make much progress in Wales. A report has just been issued of the proceedings at the last two quarterly meetings, and in it the following appears:—

"The South Wales representative stated that the Blaenavon men had been so much disappointed by the Brierley Hill executive that they were not favourably disposed to the Union. The President was instructed to pay a visit to the district, in order to stir up a union spirit."

Mr. Kane's visit to South Wales is thus described:—

"His first meeting was at Blaenavon, where he spoke on the following subjects:—The helpless condition of the men of Wales when unprotected by Union; the condition of the men in Staffordshire and the North of England and Scotland before union commenced; the great improvement in their social position since union commenced; a passing glance at the unsatisfactory mode of management in the past."

The Brierley Hill executive are strongly censured for their treatment of the men in Wales at the beginning of 1861, when a strike was ordered at Blaenavon, and the men were supported for three weeks, but at the end of that time two delegates were sent down, who, after seeing the managers, stated that the hands had got into a "hazy delirium," and did not want to work. They declined to pay the men any more strike money, and hence the dissatisfaction which existed in Wales. With the exception of Blaenavon, there is little union in Wales, and against it becoming better the difficulties at present appear insurmountable. These statements clearly prove that the Welsh ironworkers have at last seen the fallacy of the so-called "Union," and have learnt that their grievances can be better remedied by a direct application to their employers than by such combinations as the "Union" almost invariably recommends.

By the demise of Mrs. Boteler, Llandough Castle, the Maesmawr estate, Glamorganshire, a valuable mineral property, falls to Mr. T. W. Hooker, of the Pentretyr and Melingriffith Works.

At the Monmouthshire Railway and Canal Company half-yearly meeting, on Wednesday (Mr. Crawshay Bailey, M.P., in the chair), the directors' report showed that, after payment of all expenses, including the cost of opposing the bills affecting the company in the last session (3653L), there was an available balance of 21,083L, out of which it was proposed to declare a dividend at the rate of 6½ per cent. per annum, leaving 8L to be carried forward. The Chairman, in moving the adoption of the report, said they would have a much larger amount to carry forward if they had not determined to pay the whole of their parliamentary expenses at once, instead of spreading them over a number of years, as was the practice of some companies. A number of schemes affecting the company had been introduced this year, but all had collapsed with the exception of the Bassaleg and Crindia and the suspension of Mr. Savin. The enormous cost of the Bassaleg and Crindia, and the suspension of Mr. Savin, would, it is thought, be fatal to that scheme. The traffic continued to increase in a satisfactory manner. The report was unanimously adopted, and a dividend at the rate of 6½ per cent. per annum (less income tax) was declared for the half-year. On the proposition of Mr. Thomas Brown, seconded by Mr. Phillips, Messrs. Bailey and Co., bankers, were appointed treasurers of the company, in the place of the West of England and South Wales Banking Company. The old directors were re-elected, and Mr. Thos. Powell, colliery proprietor, and Mr. F. Tothill, of Bristol, were elected to fill the vacant seats at the board.

A large and enthusiastic meeting of the burgesses of Llantrisant has been held, in reference to the Common Question, at which the following resolution was unanimously passed:—"That this meeting being convinced of the right of the corporation of Llantrisant to the lands of the Graig and the Cynddys, do hereby pledge itself to maintain such rights by all necessary legal proceedings." The principal speakers were the Treture (Mr. Lewis), Mr. C. H. James, Merthyr (solictor to the burgesses); Mr. Gwynn Williams, Mislin; Dr. Lloyd, &c. As announced in a previous report, the trustees of the Marquis of Bute claim the property as part of the Marquis's manors, and they have let the minerals and several acres of the surface to Mr. Thomas Powell, who is sinking to the coal measures.

NARROW GAUGE ON THE SOUTH WALES RAILWAY.—An influential deputation, consisting of peers, M.P.'s, mayors, iron and coal masters, and others connected with the South Wales district, waited upon Mr. D. Gooch, M.P., Chairman of the Great Western Railway, on Thursday, and presented to him the memorial adopted at the Neath meeting. Mr. Gooch assured the deputation that immediately the Great Western Additional Powers Bill became law no time would be lost in laying the narrow gauge on portions of the South Wales line.

The arrivals at Swansea include:—The Princess, from Santander, with 268 tons zinc ore, for Richardson and Co.; the Collina, from Havre, with two barrels lead ore, for H. Bath and Sons; Garland, from San Francisco, with 884 tons copper ore, for T. Wood; 1000 drams quicksilver, for H. Bath and Sons; and 4 tons silver ore, to order. Martha, from Cherbourg, with 201 tons iron ore, for W. Crawshay. Ansel, from San Francisco, with 840 tons copper ore, 3 tons silver ore, and 63,250 lbs. quicksilver, for Wood and Co.; and 400 bags copper ore, to order. Gaetano, from Leghorn, with 136 tons copper ore, for H. Bath and Sons; Sabreuil, from Camillas, with 147 tons zinc ore, for Shackleford and Co.; Mary Ann Holman, from Guayaquil, with 36 tons of copper, 29 tons of copper in pigs, 17 tons spealer, 295 tons copper regulus, and 29 tons copper ore, for H. Bath and Sons; Cuba, from Cuba, with 603 tons copper ore, and 87 tons copper regulus, for Cobre Mining Company; Havre, from Havre, with 17 cases of tin regulus, for Baudry and Co.; Herzog, Bogislawn, from Alicante, with 75 tons copper ore, for R. Cowell. John Banks, from Wallaroo, with 680 tons copper ore, for Richardson and Co.

FOREIGN MINING AND METALLURGY.

Contracts have been let for ordinary rails, Bessemer steel rails, and other objects required for the Belgian State railway system. The tenders submitted for ordinary rails varied between 6L. 11d. and 6L. 18s. 5d. per ton, the lowest price having been offered by the Monceau-sur-Sambre rolling mills. Adjudications of Bessemer steel rails always present interest and on the occasion to which we are referring several new works enter-

the field, one of which, represented by Mr. Simon, of Manchester, represented a tenders remarkable for its relative cheapness. Six lots of rails with switches and bolts, were tendered for in lots of 600 tons each, and the tenders sent in were as follows:—M. Salier, Monceau-sur-Sambre Company, 6L. 14s. 1d. per ton delivered at Marche-en-Famenne; M. Bouquelin, of La Louviere, 6L. 12s. 2d. per ton, with delivery at La Louviere; M. Du Doriot Frères, of Acois, one lot, at 6L. 15s. 9d., and one lot at 6L. 14s. 1d. per ton, with delivery at Châtelineau; the Cockerill Company, one lot, at 6L. 18s. 5d. per ton, with delivery at Couillet; the Châtelineau Company, one lot, at 6L. 18s. 5d. per ton, with delivery at Châtelineau; and M. Dallemand representing the Sclessin Company, one lot at 6L. 18s. 9d. per ton, with delivery at Liège; and Léon Guillemin. As regards the Bessemer rails, we may add that the tenders were as follows:—Mr. H. Simon, of Manchester, 15L. 1s. 6d. per ton, with delivery at Antwerp; Mr. Robertson, of Hamburg, 15L. 2s. 5d. per ton, with delivery at Antwerp; and M. Denner, of Brussels, 15L. 0d. per ton, with delivery at Antwerp; and the Impy and St. Seurin Company, 15L. 1s. 6d. per ton, with delivery at Antwerp; and Quatre-Vents. These tenders were submitted for a lot of 185 tons. For two other lots of 155 tons each the terms offered were: Mr. Robertson, 15L. 1s. 6d. per ton, with delivery at Antwerp; Mr. H. Simon, of Manchester, 15L. 1s. 6d. per ton, with delivery at Antwerp; Mr. Robertson, two lots, at 15L. 1s. 6d. per ton, with delivery at Antwerp; John Brown and Co. (Limited), of Sheffield, one lot, at 15L. 1s. 6d. and one lot at 15L. 8s.; the John Cockerill Company, of Seraing, one lot, at 15L. 1s. 7d., with delivery at Liège; and M. Denner, of Brussels, one lot, at 15L. 1s. 7d., with delivery at Antwerp; and M. Dallemand, of Brussels, one lot, at 15L. 1s. 7d., with delivery at Antwerp. During the last few days the market for rails has been tolerably active in Belgium, a circumstance which explains the relative firmness of the prices presented at the adjudication. Among important contracts which have been concluded, mention is made of 12,000 tons of rails and iron secured by the Cockerill and Châtelineau Companies for the account of the new Belgian Railways Company. A Charleroi casting pig is now quoted at 47 per ton for Sambre and Meuse railings, is dealt in at 37s. 8d. per ton, some works making 37s. 8d. per ton. Railings, first-class, have maintained themselves at 6L. 16s. per ton, the tendency of the market being, upon the whole, favourable. First-class plates are stationary at 9L. 1s. per ton; as a general rule, quotations are well maintained. The Montigny Company carried its No. 1 rolled iron to 77. per ton; No. 2, to 77. 12s. 2d.; No. 3, to 78. 4s.; and No. 9; fine-grained iron to 11L. 4s.; steel to 13L. 4s.; and sheets of ordinary dimensions to 9L. 12s. per ton. At Liège iron and pig are well maintained; the construction workshops have their works assured on sufficiently remunerative terms; armour-making industry is still in a suffering condition. Some amount of attention has been excited by an approaching general meeting of the Cockerill Company; we hope to be given some details on the subject next week. We announced in a recent impression the failure of an attempt made to sell the Hamdens Rolling Mills; a second effort in the same direction has not proved more successful, a single offer of 3000L. not having been accepted; it is stated, however, that a more acceptable offer has since been received.

Madrid Railway is now open, and although the charges for carriage are as yet unreasonably high, and frequent interruptions have occurred, still it is a great point gained to have railway communication completed to within five or six miles of Linares town, and nine or ten miles of the mines.

Upon the return of the committee to the mines, those first visited were the LINARES COMPANY. The impressions which they had formed of the Pozo Ancho Mines were confirmed. The Old Mine has failed during the last few years in its central or deepest part, but the trial of the lode at an increased depth presents more encouraging features at present than for a long time past. At the eastern part of the mine a great extent of productive ground still remains to be worked upon, and means are being taken to expedite the extraction of ore by carrying down Taylor's shaft, and by erecting upon it an engine for pumping and winding, to effect a more rapid development of that important section of the mine. Again, at Warne's and Crosby's shafts, the western extremity of the workings, a valuable piece of ground has been opened, and the appearances are of a very encouraging character; the lode is proved to be rich for more than 100 fms. in length in the 61 fm. level, and it is opening well in the 71 fm. level, which has only just been reached. The Quintos Mine, which has lately been purchased by the Linares Company, was visited and examined. It is about a mile to the north of Pozo Ancho.

The Juntas Mine, which has lately been purchased by the Linares Company, was visited and examined. It is about a mile to the north of Pozo Ancho. The jades which traverse the pertinencias are probably the same which are worked in the Fortuna Mines. These pertinencias were purchased for the sum of £6000.; they are considered to be a very valuable acquisition to the company, and in fact were looked upon by everyone in the neighbourhood as (next to the Government mines) the best set in the district. The committee recommend that steps should at once be taken for the working of this mine.

The FORTUNA MINES are looking well. The improved condition of these mines is mainly due to the lode having become during the last two years richer in depth and in length, both at Canada Inca and Los Salidos, and the south or new lode at Canada Inca, upon which works were commenced in 1864, is opening very satisfactorily, and promises to be of considerable value. A new engine, of 50 in. cylinder, will shortly be placed upon O'Shea's shaft, to command the whole western section of Canada Inca; and the 36-in. engine now working at Canada Inca will then be removed to Salidos, where the 30-in. engine is taxed to its full power. These alterations completed, the two mines can be carried down to a great depth, and made to yield a very large quantity of ore; but several additions to the various appliances are necessary to cheapen the raisings and the moving of the orey stuff which the mines yield, and this remark will apply to all the mines which the three companies possess. The smelting works belonging to the Fortune Company were in full operation, and the stock of lead ore, which had been very considerable, was much reduced.

The ALAMILLOS MINES demanded and received attention, both from their large extent and great promise, as well as from the large expenditure which has been incurred upon them. The pertinencias in which these mines are situated are nearly two miles in length, and at several places two and even three parallel lodes are visible, and have been worked. Sixteen shafts had been cleared out, repaired, and sunk to depths more or less important, and an aggregate length of not less than 890 fms. had been either cleared out upon the lodes at various points, or driven through new ground; these levels had in many places opened up very good ore ground, from which important returns will be derived.

The points of the best assured promise are about Taylor's and Magdalena shafts, in the centre of the mines, about Crosby's shaft, where the levels were opening some excellent ore ground at very shallow depths, and also again at the eastern section of the mine, near the San Francisco and San Raphael shafts. The lodes are hard and expansive to open, but they are large, well defined, and considerably enriched with ore. They are heavily watered, and the boilers are inadequate, but preparation is made for erecting a more powerful pumping engine. The winding and crushing engines have been temporarily employed in pumping. The mine is supplied with some excellent buildings, and a line of tramway has been laid from the eastern part of the mine to the dressing floors, for conveying the ores. The question of the increased price of labour in the Linares district is one of the greatest interest to all concerned in the mines. The committee cannot hold out much hope that any material reduction in the underground miners' wages is likely to take place, but they think it very probable that owing to the facilities for travelling which the railways will afford, and to the completion of such railways a larger supply of men for surface labour will be forthcoming. In our own country the establishment of lodging-houses or barracks in the immediate neighbourhood of works is now very frequent, and an experiment might be tried by the erection of one or two houses near the Fortune Mines, to accommodate 30 or 40 men. This or any other expedient which can be adopted to cheapen the cost of labour deserves the best consideration of the boards. As an opinion formed as the result of their visit, Messrs. Crosby and Taylor observe, with regard to the Alamillos Mines, that altogether there is no evidence of a most vigorous prosecution of the works with a view to bringing the mine into state of early productiveness; and the desire to arrive at early results has induced the superintendent to commence operations upon many points simultaneously. These mines constitute a property of very considerable value, and they can confidently hope that in the course of a few months they will be made first self-supporting, and then profitable.

THE OIL AND MINERAL RESOURCES OF CANADA.—Upon several previous occasions the attractions which Canada offers for the profitable development of mining enterprise have been referred to in the Journal, and scarcely a mail arrives without bringing fresh evidence of her riches. Referring to the Bay of Chaleurs in the district of Gaspe, Mr. P. Tocque writes very encouragingly with regard to both coal oil and minerals. He states that about two miles up Port Daniel River beds of black bituminous graphitic shales come to the surface, and are seen at intervals for several miles. These black shales hold hydro-carbonaceous matters in sufficient quantity to burn with flame when subjected to heat, and are said to yield considerable quantities of oil by distillation. It is very probable true coal would be found immediately beneath the shale, for the whole formation belongs to the carboniferous group of rocks, or the coal measures. Twenty-four longitudinal cast-iron retorts have been erected, and it appears that from 30 to 35 tons of shale were distilled daily, and made to yield 250 gallons of crude oil, corresponding to about 5 per cent. of the rock. By a further continuance of the heat, a small additional proportion of oil was obtained from the shale. The bed of shale adjoins the works, and was furnished ready broken at 25 cents the ton. The cost of the crude oil from the shale was stated by the manufacturers to be 14 cents the gallon. When rectified and deodorised, it gave from 40 to 50 per cent. of burning oil, and from 20 to 25 per cent. of pitch and waste, the remainder being a heavy oil, fitted for lubricating purposes. After two or three unsuccessful trials, and the repeated destruction of the works by fire, they were at last, in 1860, got into successful operation, and a ready market was found for the oil. The Port Daniel limestone is of an excellent description; it is fossiliferous, and well fitted for mortar or for agricultural purposes. Very beautiful flag and tile stones might be obtained from some calcareous strata, and split readily into large and very even plates of almost any required thickness. From the presence of a small quantity of mica in the divisional planes, the bed of siliceous conglomerates at the base of the limestone series, as well as others of similar character, and of greater amount, on the West River, would yield good millstones. Green jasper and agates are found among the conglomerate formation. The shales and limestones contain small quantities of copper, and in the limestone sulphate of baryta is also found. It is generally considered that the district is destined to become one of the most thriving in Canada.

DEPOLARISATION OF IRON SHIPS.—We understand Mr. Evan Hopkins, C.E., has received instructions from Sir J. D. Hay, the Chairman of the Millwall Ship-building Company, to apply his system, to which reference has recently been made in the Journal, to the depolarisation of the Northumberland. Some preliminary trials were made on Tuesday, which proved highly successful.

SPECULATION IN IRON WARRANTS.—An ironmaster, writing from Stockton-on-Tees, says—"As an iron manufacturer of some importance in the Cleveland district, I can inform you, without fear of contradiction, that pig-iron is made for 37s. 6d. to 42s. 6d. per ton, free on board. Some years ago I had some statistics prepared by one of the first mining engineers in Scotland, and the average price he concluded to be 32s. per ton for Scotch iron. The price to which this speculation has forced the figures is 41s. for Cleveland iron, and 79s. for Scotch pig-iron. But, be it observed, during the progress of this speculation all articles of importance made from pig-iron have not in the least degree advanced, but receded. Halls are quoted 6s. 5d. f.o.b. in Wales and Cleveland; whereas, the price was 6s. 15s. to 7s. when Scotch pig were 5s. Bars, plate, and angle iron are in the same condition, and one may well ask what possible ground is there for this advance? The question may be answered by asking who are the promoters of this speculation. It would be ridiculous to be too particular, but it is well known that it is not the consumers who have been purchasers. Cotton brokers, shipowners, and a whole host of dabbler small and great, far removed from the iron trade, are the extensive buyers of warrants—not of iron at present prices; and it is notorious that the financial facilities they have received have been from that particular class of finance, credit, and banking concerns whose position is not the highest, but who foster such speculations in Grand Trunk shares and Scotch pig-iron as bring in the enormous high dividends. This inflated and injudicious movement will do harm to the iron trade for a time, but it is not likely to be very long-lived."

PRESERVATION TO AN EMPLOYER.—The workmen employed at Messrs. Baldwin's, Wilden Iron and Tin-Plate Works, near Stourport, made a very handsome birthday present to Mr. G. Baldwin, on Friday last. The present consisted of a beautiful electro-plated tankard, goblet, and inkstand, each having an appropriate inscription, with Mr. Baldwin's crest engraved upon it. A correspondent, who sends us information of the above facts, remarks:—"Such instances as these deserve notice, because they show that although in many places at the present time the good feeling that ought to exist between employers and employed is wanting, yet there are working-men who can, and do, appreciate kindness, uprightness, and urbanity, when they see them exhibited in the conduct of their employers, which appreciation augurs well in favour of both the masters and men, and tends to make each study the interests of the other."—*Wolverhampton Chronicle.*

NEW INVENTIONS.

PROVISIONAL PROTECTION.—For six months has been granted for the following:—R. Bond and W. J. Russell, both of Newport, and B. S. Fisher, of Tredegar, and in Monmouth.—An improved substitute for emery, to be used for cutting, grinding, and polishing metal, marble, glass, precious stones, and other hard substances. Feb. 8.

T. E. WHEELDON, Wolverhampton.—Improvements in casting chilled rolls. Feb. 14.

J. ROTHERY, Waterloo Main Cellery, near Leeds.—Improvements in machinery and apparatus for cutting coal and other minerals, and in driving or actuating the same. Feb. 15.

C. J. COUEN, Toulouse, France.—Manufacturing iron and steel, and the alloyage of metals, together with preparing ores for the same. Feb. 23.

R. A. BROWN, 66, Fleet-street.—Improvements in casting metals and in moulds employed therein. Feb. 28.

LETTERS PATENT have been issued for the following:—J. GRAND, Oullins Department of the Rhone.—Improvements in treating, working, or manipulating cast-steel, for the manufacture of wheel-tyres, armour-plates, and other articles requiring great hardness and tensile strength. Sept. 6.

H. A. BOWMAN, Paris, and 38, Porchester-Terrace, Bayswater.—Improvements in safety-lamps for use in mines and other localities. Sept. 16.

N. KONNUSKORF, Birmingham.—Improvements in the manufacture of cast-iron, malleable iron, and steel. Sept. 26.

T. BENT and T. L. G. BELL, Finsbury, Essex.—Improvements in apparatus used for calcining and roasting copper and other ores and substances containing sulphur. Sept. 14.

W. C. NEWTON, 66, Chancery-lane.—Improvements in making amalgams or alloys of SPECIFICATIONS published during the week:—

Punching sheet metal blanks, 4d.; distilling coal and peat, 10d.; manufacture of iron and steel, 4d.; planting and shaping metal, 2s. 8d.; casting ingots, 10d.; furnaces, 4d.; hardening and tempering steel, 4d.; forging machines, 10d.; heating the blast for furnaces, 10d.; reducing cementing and melting iron, and other ores, &c., 10d.

L. DE FONTAINEMOREAU.

Contracts for Rails and Fastenings.

MINISTERE DES VOIES DE COMMUNICATION, ST. PETERSBOURG.—The RAILWAY DEPARTMENT of the above Ministry do hereby give notices that, on FRIDAY, the 30th inst., they will be PREPARED TO RECEIVE TENDERS from such persons as may be willing to CONTRACT for supplying, and delivering free at Cronstadt, the undermentioned articles, required for the OREL KOURSE RAILWAY:

12,437 tons of FLANGE RAILS, weighing about 70 lbs. to the yard.
406 tons of FISH PLATES.
89 tons of BOLTS and NUTS.
136 tons of SOLE PLATES.
294 tons of DOG-HEADED SPIKES.

Separate tenders are to be made for each article.

The Railway Department reserve to themselves the power of contracting either for the rails with fastenings, or for each separately.

The above quantity of rails and fastenings is to be delivered free at Cronstadt, by or before the 15th (1st) August, 1866. The rails and fastenings are to be insured up to the St. Petersburg terminus of the Nicholas Railway. The soundness of the rails is to be guaranteed for a period of six years, and that of the fastenings for three years, from the date of their arrival at Cronstadt.

The person whose tender is accepted will be required, in signing contract, to make a deposit of 2½ per cent. of the contract amount, as security for the due performance of contract; this sum to be retained by the railway department until the expiration of the term for which the rails and fastenings are guaranteed.

Each tender to be addressed to the Railway Department at St. Petersburg, and lodged there on the 30th (18th) instant, after which date no tenders will be noticed. Should want of time necessitate quotations to be tendered by telegraph, they must be followed up by letters, giving full particulars and notice of the message being forwarded to St. Petersburg.

Payments are made by cash upon inspection, and delivery at Cronstadt.

The specification and tracings may be seen, and all particulars obtained, at the Railway Department, St. Petersburg, and abroad of the agents to the Russian Government, viz.—in England, Lieutenant of Engineers, Prosper Wall, Tredegar, Monmouthshire; and Belgium, Lieutenant of Engineers, Montfou, 65, Rue du Montagne, Brussels.

By order, Lieut. P. WALL, R.E.

O N THE URAL—COPPER SMELTING WORKS.—114,000 Dossiers of LAND, of which 90,000 are good forest, TO BE SOLD, at extremely moderate price. For particulars, write in German, French, or Russian, to Mr. A. MEZZER, Engineer, Orenburg.

T O RAILWAY CONTRACTORS, CARRIAGE, WAGON BUILDERS, AND OTHERS.—TO BE DISPOSED OF, BY PRIVATE TREATY, A WORKS, LAND ADJOINING, and SIDINGS, in a very suitable position, well adapted to carry on any description of business, having an immediate connection with the Great Western Railway Company, the London and North-Western Railway Company, and water communication, also being in the immediate vicinity of the coal and mineral districts of North Wales, Lancashire, Derbyshire, and the Midland Counties. Immediate possession can be given. Further particulars may be obtained on application to "A," MINING JOURNAL office, 26, Fleet-street, London, E.C.

T RANSFER OF BUSINESS.—The STOCK of GOW, GRIMMOND, and Co., to ST. JUST UNITED TIN AND COPPER MINING COMPANY (LIMITED). MORTAR MILLS, PULLIES, PEDESTALS, STOP VALVES, &c. — Apply to CHARLES J. SPENCER and Co., 15, Cannon-street West, London.

T HE SHAREHOLDERS in the following COMPANIES will please to take notice that, in consequence of the decease of Mr. Thomas Cooper Smith, Mr. ROBERT WILLIAM SMITH has been APPOINTED SECRETARY:—ST. JUST UNITED TIN AND COPPER MINING COMPANY (LIMITED).

THE BOARING WATER MINING COMPANY (LIMITED).

THE GLAN-Y-PWLL SLATE COMPANY (LIMITED).

15, Finsbury-place South, E.C., March 21, 1866.

T HE CROWN SLATE AND SLAB COMPANY (LIMITED), NEAR DOLGELLY, NORTH WALES.—The ADVERTISER HOLDS TWO HUNDRED SHARES in the above company, and is unfortunately COMPELLED TO REALISE. Any gentleman wishing to negotiate for the same may address "X. Y.", care of Mr. P. Barker, King-street, Manchester.

W EST VONWAG LEAD MINE (LIMITED), MOLD, NORTH WALES.—A HOLDER of FIFTY SHARES (fully paid-up) WISHES to DISPOSE of them.—Address, "J. R.," care of Mr. P. Barker, 63, King-street, Manchester.

CAPT. J. RABEY OFFERS FOR SALE FIFTY SHARES, at the nett price of £2 per share, in the CAL-R-PANT MINE, joining the great Minera Mine, and one of the best prospects in the district, being all whole ground, and the mine paying for itself now at the shallow depth of 40 yards.—Address, Captain J. RABEY, Coedpoeth, near Wrexham, Denbighshire, North Wales.

T HE CREDIT FONCIER AND MOBILIER OF ENGLAND (LIMITED).—Notice is hereby given, that the ORDINARY GENERAL MEETING of this company will be HELD at the London Tavern, Bishopsgate-street, on WEDNESDAY, the 25th of April, at Twelve o'clock (noon) precisely, for the purpose of receiving the directors' and auditors' report and balance-sheet, and for declaring a dividend.

The Transfer-books of the company will be closed from Four p.m. on Wednesday, the 18th of April, until 10 a.m. on Friday, the 27th April.

By order of the Court of Directors,
17 and 18, Cornhill, London, March 21, 1866.

ALFRED LOWE, Secretary.

F ORTUNA COMPANY (LIMITED).—Notice is hereby given, that in conformity with the Deed of Settlement, the HALF-YEARLY GENERAL MEETING of the shareholders in this company will be HELD at the offices, as under, on THURSDAY, the 29th of March, at One o'clock.

To receive the accounts and balance-sheet, with reports from the directors, auditors, superintendent, and mining agents, for the half-year ending December 31, 1865.

To appoint three directors: two in the place of James Crosby and Richard Taylor, Esq.s, who go out of office by rotation, but who are eligible, and offer themselves for re-election; and one in the place of the late William Cox, Esq., deceased; William Cox, Esq., who is eligible, offers himself for election.

To appoint two auditors for the ensuing year: one in the place of James Thomas Dodington, Esq., who is eligible, and offers himself for re-election, and the other in the place of William Cox, Esq.; Robert Palgrave, Esq., who is eligible, offers himself for election; and for general business, as authorised by the Deed of Settlement.

By order of the Board, J. B. COLOGAN, Secretary.

Notice has been received from Mr. Robert Palgrave, announcing his intention to offer himself as a candidate for the post of director.

J. B. COLOGAN, Secretary.

No. 5, Queen-street-place, Upper Thames-street, London, E.C., March 17, 1866.

T HE ALAMILLOS COMPANY (LIMITED).—Notice is hereby given, that the YEARLY GENERAL MEETING of the shareholders in this company will be HELD at the offices, as under, on THURSDAY, the 29th of March, at One o'clock.

To receive the accounts and balance-sheet, with reports from the directors, auditors, superintendent, and mining agents, for the half-year ending 31st December, 1865.

To elect two auditors for the ensuing year: one in the place of F. J. Bramwell, Esq., who is eligible, and offers himself for re-election; and the other in the place of the late Thomas Coxhead, Esq., deceased; Robert Palgrave, Esq., who is eligible, offers himself for election.

And for general business, as authorised by the Deed of Settlement.

By order of the Board, J. B. COLOGAN, Secretary.

Notice has been received from Mr. Robert Palgrave announcing his intention to offer himself as a candidate for the post of director.

J. B. COLOGAN, Secretary.

No. 5, Queen-street-place, Upper Thames-street, London, E.C., March 17, 1866.

T HE AUSTIN CONSOLIDATED SILVER MINES COMPANY (LIMITED).—Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the members of the company will be HELD at these offices, on THURSDAY, the 5th day of April next, at Three o'clock in the afternoon of that day, to consider the reports of Capt. Barratt (who has returned, after having made a personal inspection on behalf of the company of the mines proposed to be purchased), and to adopt such course and pass such resolutions thereon as may be deemed necessary or expedient.

Capt. Barratt's report may be seen on application at the offices of the company.

By order of the Board, WILLIAM DAVIES, Sec. (pro tem.).

29, Westmoreland-street, Dublin, March 22, 1866.

T HE GENERAL MINING COMPANY FOR IRELAND (LIMITED).—Notice is hereby given, that the Board of Directors of this company have passed a resolution in accordance with the provisions of the Deed of Settlement, and of the statute in that case made and provided, calling upon the several proprietors of shares in the said company to pay a CALL of TEN SHILLINGS upon each and every share held by them respectively; and such proprietors are accordingly hereby required to pay such call on or before Tuesday, the 1

Statutory Notice to Creditors.

IN THE MATTER OF THE GOODS OF JAMES MARTIN ROCHE, LATE OF FERMOY, IN THE COUNTY OF CORK, ESQ., M.D., DECEASED.
PURSUANT to the Statute, 22d and 23d Vic., cap. 105, intituled "An Act further to Amend the Law of Property, and to Relieve Trustees," ALL PARTIES CLAIMING to be CREDITORS, or otherwise; to have CLAIMS or DEMANDS as next of kin, or otherwise; against the ESTATE of said James Martin Roche, who died on the 20th day of December, 1864, are hereby required to SEND the PARTICULARS in writing of such DEBTS, CLAIMS, or DEMANDS, to Messrs. CARROLL and BARRY, of Fermoy, aforesaid, and No. 1, Capel-street, Dublin, solicitors for John Roche, of Fermoy, aforesaid, M.D., administrator of the said James M. Roche, on or before the 15th day of April, 1866, or, in default thereof, the said John Roche, the administrator, will, after the said 15th day of April, 1866, complete the distribution of the assets of the said James Martin Roche amongst the parties entitled thereto, having regard only to the claims or demands of which notice shall have been given on or previous to said day, and that the said administrator will not be liable for the said assets, or any part thereof, to any person of whose debt or claim he shall not have such notice.

CARROLL and BARRY, Solicitors to the said Administrator,
1, Capel-street, Dublin, and Fermoy, County Cork.

Dated this 15th day of March, 1866.

To BE SOLD, BY PUBLIC ROUP, within the Faculty Hall, St. George's-place, Glasgow, on Wednesday, the 4th day of April next, at Two o'clock afternoon, the LEASE of the MINES and others therein specified, in, under, and upon a certain part of the town and lands of Carrickaragway and Carnough, situated in the Barony of Cummone and County of Monaghan, so far as assigned and belonging to the HOPE SILVER LEAD MINING COMPANY (LIMITED), together with the MA-CHINERY, PITWORK, and OTHER MATERIALS at the mine, belonging to the said company.

For further particulars, apply to Mr. JOHN E. WATSON, accountant, Rendell-street; or to Messrs. MCCLURE, NAIKATH, and BAUCIS, 87, St. Vincent-street, who will exhibit the titles, inventory of machinery, and articles of roup.—Glasgow, March 15, 1866.

LEDR VALE SLATE AND SLAB QUARRY COMPANY (LIMITED). Capital £75,000, in 15,000 shares of £5 each.

First Issue, 6000 shares, of which only 1500 are offered to the public, the remainder having been privately subscribed by a highly influential proprietor in Manchester.

Deposit £1 per share on application, and £1 on allotment.

First call six months after allotment.

This company is formed with the view to introducing the requisite capital for extending the works of a large and valuable slate and slab quarry, situated at Tyn-y-Bryn, near to Dolwyddelan, in Carnarvonshire.

Five galleries are already formed, and the quarry is in full work, regularly shipping large quantities of slate.

The situation of the quarry is on the side of a mountain similar to the Penrhyn Quarries, the rock being also of a like stratification and formation.

The veins lie under a peat-bed, and good slates are made within a very few feet of the surface.

The property is held upon lease for the unexpired term of 30 years, at a small royalty, equivalent to 1*l*-*sh*.

Several distinct veins are known to exist in the property, but the operations have hitherto been confined to one blue vein of 100 yards wide; and a green vein, nearly 70 yards, has been fully proved.

The quarry has been opened out on a large scale by Mr. Griffith Ellis, manager of the late Asaphon Smith's quarries, at Llanberis, who, in his report, states:—"The quarry presents a very promising and encouraging appearance. The tedious and expensive opening out has been passed through, and I am of opinion that only a very short time, with vigorous working, will be necessary to bring the quarry to the paying point, and the profits will then be very large. The rock is admirably adapted for slabs of any size, and the outlay of a small amount of capital, in purchasing requisite machinery, will secure large returns from this source. This is undoubtedly a very valuable property, and, taking into consideration the present advanced state of the workings, the economy with which the rock may be extracted, the capabilities of extending the quarry, the quality of the slate, and the other advantages possessed, I am of opinion that the property will speedily be brought to a dividend-paying position, and that the undertaking is thus a safe and desirable channel for the investment of capital."

In a private letter to an intending shareholder, Mr. Ellis writes:—"I have not the least doubt but that it will turn out a profitable investment;" and again—"I believe the undertaking will turn out a most valuable concern."

There is a good supply of water on the property, also a valuable plant of tramways, inclining trams, wagons, weighing-machines, a 30-horse power water-wheel, sawing machinery and all quarry appliances.

Arrangements have been made for the purchase of the property on terms very advantageous to the company, £5000 being taken in shares, and the rest in cash—one half on the transfer of the property to the company, and the remainder in six months.

No promotion money will be paid by the company.

Samples of the slate may be seen at the temporary offices of the company.

Forms of application for shares may be had from the bankers (the Manchester and Salford Bank); the solicitors (Messrs. Cooper and Sons, King-street, Manchester); or from the secretary *pro tem.*, Mr. Joseph Barber, at the company's offices, 18, King-street, Manchester, where also the Articles of Association lie.

The share list will be closed with the present month.

Manchester, March, 1866.

NATIONAL PROVINCIAL BANK OF ENGLAND
(Established in the year 1834)

OPENED for the TRANSACTION of BANKING BUSINESS in LONDON on the 10th January, 1866, at the head office, Bishopsgate-street (corner of Threadneedle-street), and at the St. James's branch, 14, Waterloo-place, Pall-mall.

Subscribed capital £100,000 0 0

Paid-up capital 1,080,000 0 0

Reserve fund 225,452 6 2

Number of shareholders, 1704.

The NATIONAL PROVINCIAL BANK OF ENGLAND, having numerous branches in England and Wales, as well as agents and correspondents at home and abroad, affords great facilities to parties transacting banking business with it in London. Customers keeping accounts with the bank in town may have monies paid to their credit at its various branches, and remitted free of charge.

CURRENT ACCOUNTS are conducted at the head office and St. James's branch on the usual terms of London banks.

DEPOSITS at INTEREST are received of sums of £10 and upwards, for which receipts are granted called deposit receipts, and interest is allowed according to the value of money from time to time, as advertised by the Bank in the newspapers.

The AGENCY of COUNTRY and FOREIGN BANKS, whether joint-stock or private, is undertaken.

PURCHASES and SALES are EFFECTED in all British and Foreign Stocks, and Dividends, Annuities, &c., received for customers.

CIRCULAR NOTES for the use of Travellers on the Continent will be issued as soon as arrangements can be made.

The OFFICES of the BANK are bound to secrecy as regards the transactions of its customers.

COPIES of the THIRTY-SECOND ANNUAL REPORT of the Bank, Lists of Shareholders, Branches, Agents, and Correspondents, may be had on application at the head office, and at St. James's branch. By order of the Directors.

A. ROBERTSON } Joint General
E. ATKINSON } Managers.

MR. W. FAIRBAIRN'S WORKS ON ENGINEERING, &c.

Second Edition, complete in 2 vols., 8vo., price 16*s.* each.**T**REATISE ON MILLS AND MILLWORK.
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STANLEY'S TREATISE ON MATHEMATICAL DRAWING INSTRUMENTS.

Containing construction, qualities, selection, preservation, and method of using every instrument employed by draughtsmen, including instruments for striking arcs of high radii, ellipses, conchoids, spirals, parabolas, geometrical ornaments, perspective instruments, computing scales, ediographs, centrolines, stencil plates, &c. &c.

The work contains 250 pages, 8vo., with over 200 engravings, and is handsomely bound. Price 5*s.*; sent post free on receipt of 60 stamps to W. F. STANLEY, 3 and 5, Great Turnstile, Holborn, W.C.Now ready, crown 8vo., price 2*s.* 6*d.*, a Treatise (Dedicated, by permission, to the Right Hon. Lord Brougham)**O**N THE EXTENSION OF THE ENGLISH COAL FIELDS BENEATH THE SECONDARY FORMATIONS OF THE MIDLAND COUNTIES.

Also,

DOES COAL EXIST NEAR LONDON, GEOLOGICALLY CONSIDERED.

By JOSEPH HOLDSWORTH, Esq., M.G.S., &c., &c.

London: Published at the MINING JOURNAL office, 26, Fleet-street, London, E.C.

Now ready, price 5*s.*, by post 5*s.* 4*d.***T**HE MINES OF CORNWALL AND DEVON: STATISTICS AND OBSERVATIONS, for 1865.

By THOMAS SPARGO, Mining Engineer, Stock and Sharebroker, Gresham House, Old Broad-street, London, E.C.

This day is published, price 1*s.*

THE CONSERVATIVES AND "LIBERALS": THEIR PRINCIPLES AND POLICY.

By J. H. MURCHISON, Esq.

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JOINT-STOCK COMPANIES, AND HOW TO FORM THEM: being a second edition of the "HANDY BOOK OF PUBLIC COMPANIES."

By THOMAS TAPPING, Esq., of the Middle Temple, Barrister-at-law, and author of several works on Public Companies' Law, and the Laws and Customs of Mining.

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Fourth Thousand.

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May be had at the MINING JOURNAL office, 26, Fleet-street, London.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WHEAL HEARLE MINING COMPANY.—TO BE SOLD, under the direction of the Registrar of the said Court, BY PUBLIC AUCTION, on Tuesday, the 27th day of March instant, at Eleven o'clock in the forenoon, at the Wheal Hearle Mine, in the parish of St. Just-in-Penwith, within the said Stannaries, either together or in lots, the MINE SETTS or GRANTS of the said COMPANY, and the UNDERMENTIONED MINING MACHINERY and MATERIALS, viz.:—

ONE 30 in. CYLINDER PUMPING ENGINE, with ONE BOILER, 9 tons, with 24 heads stamps iron axle.

1 balance bob, 30 ft. beam, wood.

1 shear, 16 fms., with pulleys, &c., iron, 1 capstan, connected with engine, with 150 fms. 7-16 in. chain.

130 fms. 13*1*/₂ in. flat-rods, with 30 small pulleys to flat-rod shaft.10 fms. 1 in. bucket-rod, with about 20 fms. $\frac{1}{2}$ in. chain, with woodwork in shaft.

2 fms. 1 in. cylinder winding engine, with boiler, about 6 tons, with 300 fms. 9-16 in. chain.

1 balance piece, 3 in. wire-rope, with guy chains.

A quantity of smiths' and miners' tools, a large quantity of pitwork, several wood sheds, new and old timber, new and old iron, drawing lift, 1 6*1*/₂ in. working barrel, 1 door piece, 1 windore, 1 6*1*/₂ in. bucket brass, 6 fms. connected to stamps, 1 1*1*/₂ in. bucket-rod, beam, scales, and stand and weights, miners' chests, carpenters' shop and materials, powder, safety fuse, account-house and office furniture, and a variety of other articles and effects in general use in mines.

Further particulars may be had on application to Mr. BELLINGHAM, the officer of the Court in possession.

(Solicitors for the Petitioner).

HODGE, HOCKIN, AND MARRACK, Truro
(Agents of the said Solicitors).

Dated Registrar's Office, Truro, March 7, 1866.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WEST FURSDON MINING COMPANY.—TO BE SOLD, under the direction of the Registrar of the said Court, BY PUBLIC AUCTION, on Tuesday, the 28th day of February, 1866, presented to the Vice-Warden of the Stannaries by John Lark, a creditor of the said company, and that the said petition is directed to be heard before the Vice-Warden, at the College Hall of the Vicars, Exeter, on the 4th day of April next, at Two o'clock in the afternoon.

Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioner, his solicitor, or agent, of his intention to do so, such notice to be forthwith forwarded to the secretary of the Vice-Warden, P. P. Smith, Esq., Truro.

Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same, from the petitioner or his solicitor, within 24 hours after receiving the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before Monday, the 23rd day of April next, and notice thereof must at the same time be given to the petitioner, his solicitor, or agent.

(EDWARD CHILCOTT, of Tavistock

(Solicitor of the Petitioner).

(J. G. CHILCOTT, of Truro
(Agent of the said Solicitor).

Dated the 17th day of March, 1866.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

IN RE WEST GREAT WORK MINE.

TO BE SOLD, pursuant to an Order made in a Cause Paull v. Martin and Others, dated the 4th day of January last, at the Registrar's Office, at Truro, on Wednesday, the 4th day of April next, at One o'clock in the afternoon, 29 (3500ths) PARTS or SHARES of the defendant, Martin Junior, 11 (3500ths) PARTS or SHARES of the defendant, Benjamin Libby, 25 (3500ths) PARTS or SHARES of the defendant, Thomas Faull, 17 (3500ths) PARTS or SHARES of the defendant, James T. Faull, 6 (3500ths) PARTS or SHARES of the defendant, Sarah Ann Laurence, 12 (3500ths) PARTS or SHARES of the defendant, Helen Hemming, 50 (3500ths) PARTS or SHARES of the defendant, F. M. Doherty, 50 (3500ths) PARTS or SHARES of the defendant, Thomas Fuller, 27 (3500ths) PARTS or SHARES of the defendant, George Hawke, and 10 (3500ths) PARTS or SHARES of the defendant, William Vine, Of and in the said MINE.

JOHN GILBERT CHILCOTT, Truro
(Agent for John Rule Daniel, Camborne, Plaintiff's solicitor).

Dated Registrar's Office, Truro, March 16, 1866.

In Chancery.

TO BE SOLD, pursuant to an Order of the High Court of Chancery, made in the Matter of the estate of Thomas Hind, late of Whitehaven, in the County of Cumberland, sail maker, deceased, and the cause of Hind v. Thompson, with the approbation of His Honour the Vice-Chancellor, Sir Richard Torr Kindersley, by Mr. JOHN HOWELL THOMAS, to whose Court the above Matter and Cause are attached, by Mr. KIRKMAN, the person appointed by the said Judge, at the Black Lion Hotel, Whitehaven, on the 10th of May, 1866, at Three o'clock in the afternoon, in four lots.

LOT 1.—FREEHOLD FARMS, LANDS, BUILDINGS, COTTAGES, and PREMISES, called Greenop and Blacklands, in the parish of Arlecdon, in the County of Cumberland, containing 102*s.* 2*m.* 10*y.* of land; the farms, buildings, and lands being demised to Thomas Trobri for seven years, from the 24th February, 1862, at the annual rent of £100, and the cottage to James Renkin, at the annual rental of £9.
LOT 2.—FREEHOLD PUBLIC-HOUSE, OUTBUILDINGS, and CLOSE OF LAND, called Stroodford, in the parish of Distington, in the said county, containing 16*s.* 3*m.* 3*y.* of land, let to Thomas Smith, at the annual rental of £18.
LOT 3.—MINES and MINERALS, under 94*s.* On 3*m.* of the above-named farms, called Greenop and Blacklands, demised to George Gray, and others, for fourteen years, from the 23rd May, 1860, at the dead rent of £40 per annum, and the yearly rents of £40 per ton for round and 4*s.* per ton for small coal.

IMPORTANT REDUCTION IN THE PRICES OF PORTABLE ENGINES FOR 1866.

CLAYTON, SHUTTLEWORTH, AND CO., ENGINEERS,
MANUFACTURERS of PORTABLE and FIXED STEAM ENGINES, MACHINERY for PUMPING, HOISTING, GRINDING, SAWING, &c. ENGINES for STEAM CULTIVATION, SELF MOVING ENGINES for COMMON ROADS, and AGRICULTURAL PURPOSES GENERALLY.
STAMP END WORKS, LINCOLN, and 78, LOMBARD STREET, LONDON.
ALSO AT
LOWENGASSE No. 44, LANDSTRASSE, VIENNA, and GEGENUBER DEM BAHNHOF, PESTH.

Descriptive, illustrated, and priced catalogues free per post.
Special Drawings when required.

THE BEST STEAM THRASHING MACHINERY MADE.

PORTABLE ENGINES.—CLAYTON, SHUTTLEWORTH, and Co. beg to announce that they have made a CONSIDERABLE REDUCTION in the PRICE of their PORTABLE STEAM-ENGINES.

Revised catalogues will be sent on application to CLAYTON, SHUTTLEWORTH, and Co., Lincoln; or 78, Lombard-street, London.

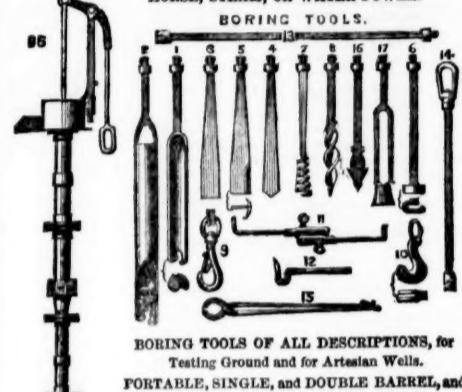
FIRST-CLASS PORTABLE ENGINES, of 8 and 10-horse power (with or without link-motion reversing gear), specially adapted for ECONOMY in the CONSUMPTION of FUEL, and READY for IMMEDIATE DELIVERY.—Particulars on application to BADGER and Son, Engineers, Rotherham.

NOTICE.—Notice is hereby given, that the COAL BUSINESS CARRIED ON for many years by Mr. JOS. DUNSTAN will, on and after the 1st March next, be CONTINUED under the FIRM of J. DUNSTAN AND CO. To the above will be ADDED the BUSINESS of GENERAL MERCHANTS, AUCTIONEERS, MINE BROKERS and SHAREDEALERS, MINE PURSERS, COMMISSION AGENTS, ACCOUNTANTS, &c.

J. DUNSTAN and Co. hope, by strict application to all matters of business entrusted to her care, to merit a liberal share of public patronage.—Truro, January 24, 1866.

CLINTON AND OWENS (LATE B. FOWLER AND CO.), WHITEFRIARS STREET, FLEET STREET, LONDON, E.C., HYDRAULIC AND GENERAL ENGINEERS,

MANUFACTURERS OF PUMPS OF EVERY DESCRIPTION FOR HAND, HORSE, STEAM, OR WATER POWER.



BORING TOOLS OF ALL DESCRIPTIONS, for Testing Ground and for Artesian Wells.

PORTABLE, SINGLE, and DOUBLE BARREL, and other PUMPS, and PORTABLE STEAM ENGINES.

CRABS, CRANES, PULLEY BLOCKS, and HOISTING TACKLE.

ANY OF THE ABOVE CAN BE HAD ON HIRE OR PURCHASE.

Full information, Drawings, Price Lists, &c., relating to the above, and to Hydraulic Machinery of all descriptions—Crabs, Pulleys, Blocks, and Hoisting Tackle of superior manufacture—may be had on application.

Swan Rope Works.

GARNOCK, BIBBY, AND CO., CHAPEL STREET, LIVERPOOL, MANUFACTURERS of FLAT and ROUND HEMP and IRON and STEEL WIRE OPES for MINING, RAILWAY, and SHIPPING PURPOSES. MANILLA ROPE of SUPERIOR QUALITY, FIFTY PER CENT. STRONGER and THIRTY PER CENT. CHEAPER than Russian hemp rope. WIRE ROPE of FIRST QUALITY WIRE, and the HIGHEST STANDARD of STRENGTH.

First Class Silver Medal, Royal Polytechnic Society, Falmouth, 1864.

CREASE'S PNEUMATIC TUNNELLING ENGINE, for superseding the SLOW and EXPENSIVE USE of MANUAL LABOUR in SINKING SHAFTS, DRIVING LEVELS, TUNNELLING, &c., is guaranteed to drive through any rock of average hardness at a minimum rate of 1 fm. per diem, and to sink shafts at the rate of 2 fms. in three days.

Mr. CREASE will undertake contracts for sinking shafts, driving levels, &c., at an enormous reduction of time and great saving in cost.

Applications to be addressed (for the present) to the patentee, Mr. E. S. CREASE, Tavistock Devon.

IMPORTANT TO BRASS FOUNDRERS, ENGINEERS, AND OTHERS.—The ONLY MEDAL for CRUCIBLES (London, 1862; and Dublin, 1865), was AWARDED to the PATENT PLUMBAGO CRUCIBLE COMPANY.

The GREAT SUPERIORITY of the PLUMBAGO CRUCIBLES manufactured by the PATENT PLUMBAGO CRUCIBLE COMPANY consists in their capability of melting on an average 40 pourings of the most difficult metals, and a still greater number of those of an ordinary character, some of them having actually reached the EXTRAORDINARY NUMBER of 93 meltings. These Crucibles never crack, become heated much more rapidly than any other description, require only one annealing, may be used any number of times without further trouble, change of temperature does not affect them, the metal is fused much more rapidly, saving time, fuel, labour, waste, &c.

In these respects it is contended that, comparing the Patent Plumbago with the common Crucible, the saving of metal and fuel is equivalent to the cost of the Patent Plumbago Crucible.

The company have recently introduced CRUCIBLES ESPECIALLY ADAPTED for the following purposes, viz.:—MALLEABLE IRON MELTING, the average working of which has proved to be about seven days; STEEL MELTING, which are found to save nearly 1½ ton of fuel to every ton of steel cast; and for ZINC MELTING, lasting much longer than the ordinary iron pots, and saving the great loss which arises from mixture with iron.

Prices, &c., forwarded on application to THE PATENT PLUMBAGO CRUCIBLE COMPANY, BATTERSEA WORKS, LONDON, S.W.

£250,000 HAVE BEEN PAID AS COMPENSATION FOR ACCIDENTS OF ALL KINDS BY THE RAILWAY PASSENGERS' ASSURANCE COMPANY.

Invested capital and reserved fund, £50,000.

Annual income, £25,000.

An Annual Payment of £3 to £6 per week while laid up by Injury.

For particulars apply to the Local Agents, at the Railway Stations, and OFFICES, 64, CORNHILL, and 10, REGENT STREET.

W. J. VIAN, Sec.

Now ready, price 5s.
FORM OF "TACK-NOTE" OR LICENSE TO EXPLORER FOR MINERALS.

Many enquiries have been made during the past few months for the form of Tack-Note published at the MINING JOURNAL Office, to which the answer "out of print" and "reprinting" has been returned. The form may now be had upon application to the bookseller to whom orders have been given, or will be forwarded direct from our office on receipt of a remittance of 5s. by Post-order.

London: Published at the MINING JOURNAL office, 26, Fleet-street, E.C.

THE HARDWARE WEEKLY MESSENGER.
CHARLES RYLAND AND SONS' IRON TRADE CIRCULAR AND HARDWARE WEEKLY MESSENGER.

The "Iron Trade Circular" is eminently the business journal of the mining districts and the manufacturers and wholesale dealers in iron. Its information is authentic, unbiased, and complete, comprising not only the business news of the South and North Staffordshire district, but generally of the entire mining and manufacturing districts of the United Kingdom. It is now proposed to add a collection of special and general information in the interests of the Hardware Trades of Birmingham, Sheffield, and London, to be comprised in a department of the "Iron Trade Circular," under the head of "The Hardware Weekly Messenger." Subscription:—

One year (post free) £2 2 0
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Advertisements and orders to be addressed Union-passage Birmingham.

CHARLES RYLAND AND SONS, Iron and Metal Brokers.

THE NEWCASTLE CHRONICLE AND NORTHERN COUNTIES ADVERTISER. (ESTABLISHED 1764). Published every Saturday, price 2d., or quarterly 2s. 2d.

0 Messrs, 42, Grey-street, Newcastle-upon-Tyne; 50, Howard-street, North Shields; 195, High-street, Sunderland.

NICHOLLS, WILLIAMS, AND CO., ENGINEERS, BEDFORD IRONWORKS, TAVISTOCK.

MANUFACTURERS of STEAM ENGINES of EVERY DESCRIPTION, made on the BEST and NEWEST PRINCIPLES. We beg more especially to call the attention of the public to the manufacture of our BOILERS, which have been tested by most of our leading engineers. PUMP WORK CASTINGS of EVERY DESCRIPTION, both of brass and iron. HAMMERED IRON and HEAVY SHAFTS of ANY SIZE. CHAINS made of the best iron, and warranted. MINERS' TOOLS and RAILWAY WORK of EVERY DESCRIPTION.

ALL ORDERS FOR ABROAD RECEIVE their BEST ATTENTION. NICHOLLS, WILLIAMS, and Co. have had 20 years' experience in supplying machinery to foreign mines, and selecting experienced workmen to erect the same, where required.

Messrs. NICHOLLS, WILLIAMS, and Co. have always a LARGE STOCK of SECOND-HAND MINE MATERIALS in stock, and at moderate prices.

FOR SALE.—A 36 in. cylinder ENGINE, 10 ft. stroke, with TWO 7-ton BOILERS, in good condition.

PATENT FLEXIBLE TUBING, AND BRATTICE CLOTH FOR MINES, MANUFACTURED BY ELLIS LEVER,

PATENTEE, WEST GORTON WORKS, MANCHESTER.

TAVISTOCK IRONWORKS AND STEEL ORDNANCE COMPANY (LIMITED).

ENGINEERS, IRON and BRASS FOUNDRERS,

MANUFACTURERS OF STEAM ENGINES, BOILERS, AND MACHINERY OF ALL KINDS. CHAINS, SHOVELS, EDGE TOOLS, AND EVERY DESCRIPTION OF CAST AND HAMMERED IRON FOR MINING, MANUFACTURING, RAILWAY, OR AGRICULTURAL PURPOSES.

Machinery sent to all parts of the world.

Foreign mining companies supplied on liberal terms.

RAILWAY CARRIAGE COMPANY (LIMITED). ESTABLISHED 1847.

OLDBURY WORKS, NEAR BIRMINGHAM.

MANUFACTURERS OF RAILWAY CARRIAGES and WAGONS, and EVERY DESCRIPTION OF IRON WORK.

Passenger carriages and wagons built, either for cash or payment over a period of years.

RAILWAY WAGONS FOR HIRE.

CHIEF OFFICES, OLDBURY WORKS, NEAR BIRMINGHAM.

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RAILWAY CARRIAGES and WAGONS built for CASH, or upon DEFERRED PAYMENTS EXTENDING over a period of from THREE to TEN YEARS.

A large number of COAL, IRONSTONE, BALLAST, and other WAGONS to be LET ON HIRE.

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MANUFACTURERS of RAILWAY CARRIAGES and WAGONS, WROUGHT and CAST IRON CARRIAGE and WAGON WHEELS, AXLES, HAMMERED USES, and HEAVY SMITHS' WORK for ENGINEERS, &c. BRASS and IRON FOUNDRERS, MAKERS of PORTABLE FARM RAILWAYS, TURNTABLES, CROSSINGS, SWITCHES, &c. AGRICULTURAL MACHINISTS. MANUFACTURERS of FIELD, ROAD, and BARN IMPLEMENTS, PATENT LORRY, CART, and CARRIAGE WHEELS, with WOOD or IRON NAVES. REAPING MACHINES, CLOD CRUSHERS, CORN MILLS, &c. SAW MILL PROPRIETORS. GENERAL TIMBER CONVERTERS for HOME and FOREIGN RAILWAYS, STATIONS, BARRACKS, EXHIBITIONS, &c. IRONWORKS, BEVERLEY, YORKSHIRE.

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* * * Loans received on Deposit; particulars on application.

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HORIZONTAL ENGINES FOR SALE, at very low prices:—

One 12 in. cylinder, 24 in. stroke; one 12 in. cylinder, 36 in. stroke; and two 14 in. cylinders, 24 in. stroke. All ready for delivery, and may be had with or without fly-wheels.—Apply to Messrs. E. PAGE and Co., Laurence Pountney-place Laurence Pountney-hill Cannon-street E.C.

COAL CUTTING MACHINERY.—The WEST ARDSLEY COMPANY having, by recently patented improvements, perfected their coal cutting machinery, worked by compressed air, are NOW READY to MAKE CONTRACTS for the CONSTRUCTION and USE of their MACHINES.

The results of twelve months' experience in the working of these machines, by the WEST ARDSLEY COMPANY, have proved most satisfactory, their use being found to CHEAPEN the COST and IMPROVE the average SIZE of the COAL, to LIGHTEN the LABOUR, and also to MODIFY the SANITARY CONDITION of the MINE.

All communications to be made to Messrs. FIRTH, DOMTHORPE, and BOWER, No. 8, Britannia-street, Leeds.

NOTICE.—The WEST ARDSLEY COMPANY, having reason to believe that their patents are being infringed upon, hereby give notice that they will TAKE LEGAL PROCEEDINGS AGAINST ALL PARTIES who may MAKE FOR SALE, or USE ANY MACHINERY in the construction of which any such INFRINGEMENT is MADE.

GUN COTTON FOR BLASTING.—The extended use of this material has enabled the manufacturers to issue a new List, showing a LARGE REDUCTION IN PRICE; and they now beg to call the attention of those interested in MINING and BLASTING OPERATIONS to the GREAT SAVING IN TIME and COST which may be effected by the introduction of gun-cotton. Directions for use and full particulars obtained upon application to

THOMAS PRENTICE AND CO., 173, FENCHURCH STREET, LONDON; or GUN COTTON WORKS, STOWMARKET.

Patent Flat and Round Wire and Hemp Ropes, &c.

JOHN AND EDWIN WRIGHT, PATENTEES, CITY OFFICE, 19, LONDON STREET, E.C. ESTABLISHED 1770.

Manufacturers of every description of IMPROVED PATENT FLAT AND ROUND WIRE ROPES,

From the very best quality of charcoal iron and steel wire. PATENT FLAT AND ROUND HEMP ROPES, SHIPS' RIGGING, SIGNAL and FENCING STRAND, LIGHTNING CONDUCTORS, STEAM-PLough ROPES (made from Webster and Horsfall's patent steel), WIRE, HEMP, FLAX, ENGINE YARN, COTTON WASTE, &c. UNIVERSE WORKS, MILLWALL, POPLAR, LONDON. UNIVERSE WORKS, GARRISON STREET, BIRMINGHAM.

No. 2, OSWALD STREET, GLASGOW.

CITY OFFICE, No. 19, LONDON STREET, LONDON.

Prize Medals—London, 1862; Dublin, 1865.

THE PATENT PLUMBAGO CRUCIBLE COMPANY, BATTERSEA WORKS, LONDON, S.W. draw attention to the following opinions of their Patent Crucibles:—

Brass Founders, Gas-Meter, and Gas Apparatus Manufacturers, Milton House, Edinburgh, December 17, 1860.

GENTLEMEN,—We have used for the last three years your Patent Plumbago Crucibles, and find them in every respect superior to any that we have used.

Your obedient servants, JAMES MILNE AND SON.

Coleford, July 2, 1860.

For iron and brass melting, your pots are worth double the value of any other melting pots ever brought into this market, and for these purposes we think them invaluable.

Yours truly, ROBERT MUSHET.

Glass-Works, near Birmingham, October 15, 1855.

GENTLEMEN,—We have great pleasure in testifying to the value of your Patent Plumbago Crucible, which we have been using for nearly twelve months past.

We have made on the average about 30 meltings in a crucible, often exceeding that number, and occasionally making as high as 60 meltings.

The properties they possess of bearing a sudden change of temperature without injury renders them particularly valuable.

Your obedient servants, CHANCE BROTHERS AND CO.

Greenwich, June 27, 1864.

We have tried your Patent Plumbago Crucibles, and although the first cost is high, we can testify to their being the safest and most economical we have ever used.

THE MINING SHARE LIST

BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per Share.	Last paid
200 Ballatnick (tin, copper), St. Just.....	91 5 0..	— ..	.. 483 15 0..	0 0—Aug.	1865	9 per cent.	—
10000 British slate Company [L.].....	7 0 0..	— ..	.. 9 0 0..	0 0—Aug.	1865	—	—
10000 Bronford (lead), Cardigan [L.].....	12 0 0..	— ..	.. 7 15 0..	0 10 0—Jan.	1866	—	—
1200 Bryn Gwyn (lead), Mold [L.].....	9 0 0..	— ..	.. 3 0 0..	0 13 6—Aug.	1865	—	—
916 Cargill (silver-lead), Newlyn.....	15 5 7..	27 ..	.. 25 30 ..	0 13 15 0..	1 0 0—Feb.	1866	—
2580 Clifford Amalgamated (cop.), Gwenn.....	30 0 0..	15 1/4..	.. 14 1/4 ..	0 15 0..	0 10 0—June	1865	—
867 Cwm Eryr (lead), Cardiganshire [L.].....	7 10 0..	— ..	.. 18 15 0..	1 0 0—Jan.	1866	—	—
128 Cwmystwyth (lead), Cardiganshire [L.].....	60 0 0..	— ..	.. 342 10 0..	5 0 0—Dec.	1865	—	—
280 Derwent Mines (sl.-lead), Durham [L.].....	300 0 0..	— ..	.. 162 0 0..	2 10 0—Mar.	1866	—	—
1024 Devon Gt. Cons. (cop.), Tavistock [S.E.].....	1 0 0 0..	— ..	.. 580 570 ..	1017 0 0..	9 0 0—Mar.	1866	—
858 Dolcoath (cop., tin), Camborne [L.].....	12 17 6..	— ..	.. 810 10 0..	3 0 0—Feb.	1866	—	—
6000 East Carn Brea (copper), Redruth.....	3 15 0..	4 ..	.. 334 4 ..	0 5 0 ..	0 5 0—June	1865	—
6144 East Cardon (copper), St. Cleer [S.E.].....	3 14 6..	9 ..	.. 814 8% ..	14 3 0 ..	0 5 0—Jan.	1866	—
300 East Darren (lead), Cardiganshire [S.E.].....	32 0 0..	— ..	.. 109 10 0..	2 0 0—Jan.	1866	—	—
5000 East Rosewarne (cop., tin), Gwinear.....	2 15 0..	15% ..	.. 114 15% ..	0 10 6 ..	6 1 0—Jan.	1866	—
1906 East Wheal Lovell (tin), Wendron.....	3 9 0..	8% ..	.. 814 9 ..	2 0 0 ..	0 10 0—Dec.	1865	—
2800 Foxdale (lead), Isle of Man [L.].....	25 0 0..	1% ..	.. 65 0 0 ..	0 10 0—Mar.	1866	—	—
5000 Frank Mills (lead), Christow.....	3 18 6..	— ..	.. 5 15 6 ..	3 5 6 ..	0 5 0—Feb.	1866	—
15000 Great Laxey (lead), Isle of Man [L.].....	4 0 0 ..	21% ..	.. 214 20% ..	5 0 0 ..	0 10 0—Mar.	1866	—
5908 Great Wh. Vor (tin, cop.), Helston [S.E.].....	40 0 0..	27% ..	.. 25 26 ..	9 10 6 ..	0 12 6—Mar.	1866	—
1024 Herdscot (ld.), near Liskeard [S.E.].....	8 10 0..	40 ..	.. 35 40 ..	36 0 ..	0 1 12—Feb.	1866	—
6000 Hindon Down (copper), [S.E.].....	5 10 6..	5 ..	— ..	0 5 0 ..	0 5 0—Dec.	1865	—
4000 Lisburne (lead), Cardiganshire, Wales [E.].....	18 15 0..	— ..	.. 464 0 ..	3 0 0 ..	0 10 0—Jan.	1866	—
9000 Marks Valley (copper), Cardigan [E.].....	4 10 6..	4 1% ..	.. 3 5 0 ..	0 2 6—Jan.	1866	—	—
3000 Minera (lead), Wrexham [L.].....	1 0 0 ..	— ..	— ..	0 10 0 ..	0 0—Nov.	1865	—
1800 Minera Mining Co. [L.].....	18 11 0 ..	— ..	.. 193 3 0 ..	5 10 0—Feb.	1866	—	—
20000 Mining Co. off Ireland (cop., lead, coal) [L.].....	7 0 0 ..	20% ..	.. 19 11 0 ..	1 0 16 1—July	1865	—	—
6000 New Birch Tor and Vitifer Cons. (tin) [L.].....	1 6 6..	— ..	.. 13 0 0 ..	0 2 0—Oct.	1865	—	—
6000 Pant-y-Gilen (slate) [L.].....	[500 £15 pd., 100 £20 pd.] ..	— ..	— ..	10 percent.	— Mar.	1866	—
2000 Parys Mines (copper), Anglesey [L.].....	50 0 0 ..	— ..	.. 157 0 ..	5 0 0—Jan.	1866	—	—
1123 Providence (tin), Uly Lelant [S.E.].....	10 6 7..	34 ..	.. 32 34 ..	80 7 6 ..	1 0 0—Feb.	1866	—
613 South Caredon (cop.), St. Cleer [S.E.].....	1 5 0 ..	— ..	.. 510 10 0 ..	7 0 0—Jan.	1866	—	—
6000 South Darren (lead), [L.].....	3 6 6..	3 1% ..	.. 3 214 ..	0 3 0 ..	0 3 0—Mar.	1866	—
6000 Tincrown (cop., tin), Pool, Illogan [S.E.].....	9 0 0 ..	14 ..	.. 18 1 0 ..	1 0 0—Jan.	1866	—	—
6000 West Bassett (copper), Camborne [S.E.].....	1 10 0 ..	— ..	.. 26 14 0 ..	0 5 0—July	1865	—	—
3000 Wh. Chiverton (ld.), Perranzabuloe [S.E.].....	— ..	70 ..	.. 74 78 ..	9 12 6 ..	1 10 0—Feb.	1866	—
4000 Wh. Seton (cop.), Camborne [S.E.].....	15 10 0 ..	160 ..	.. 150 160 ..	449 0 ..	4 0 0—Feb.	1866	—
512 Wh. Bassett (copper), Illogan [S.E.].....	5 2 6 ..	100 ..	.. 90 95 ..	617 10 0 ..	2 0 0—Feb.	1866	—
1024 Wh. Exmouth (lead), Christow	— ..	8 ..	— ..	0 2 6—Oct.	1865	—	—
1024 Wh. Friends (copper), Devon	20 0 0 ..	— ..	.. 299 0 ..	1 0 0—May.	1865	—	—
4558 Wh. Kitty (tin), St. Agnes	5 4 6 ..	3 1% ..	.. 3 17 6 ..	0 2 6—Feb.	1866	—	—
1524 Wh. Mary Ann (ld.), Menheniot [S.E.].....	8 0 0 ..	— ..	.. 69 17 6 ..	0 10 0—Mar.	1866	—	—
2900 Wh. Rose (copper), Scorrier	— ..	1 ..	0 0 0 ..	0 10 0—Feb.	1866	—	—
398 Wh. Seton (tin), Camborne	55 10 0 ..	215 ..	.. 221 221 ..	221 15 0 ..	5 0 0—Feb.	1865	—
1040 Wh. Tremawny (sl.-ld.), Liskeard [S.E.].....	5 17 0 ..	22 ..	— ..	63 15 6 ..	0 10 0—Mar.	1866	—
7000 Wicklow (copper) [L.].....	2 10 0 ..	22 ..	— ..	15 11 0 ..	0 8 0—Nov.	1865	—

(* Dividends paid every two months. + Dividends paid every three months.)

BRITISH MINES WITH DIVIDENDS IN ABEYANCE.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per Share.	Last Call.
1200 Alderley Edge (cop.), Cheshire [L.].....	10 0 0 ..	— ..	.. 11 3 0 ..	0 15 0—Dec.	1864	—	—
3000 Bedford United (copper), Tavistock [L.].....	3 6 5 ..	— ..	.. 13 11 6 ..	0 2 6—Oct.	1864	—	—
1248 Boscaswell (tin, copper), St. Just.....	8 15 0 ..	— ..	.. 1 5 0 ..	0 3 0—May.	1864	—	—
2400 Boscaen (tin), St. Just.....	20 10 0 ..	— ..	.. 36 10 0 ..	1 0 0—Mar.	1862	—	—
1600 Brixham Hematite Iron [L.].....	6 7 6 ..	— ..	.. 0 6 0 ..	0 6—Nov.	1864	—	—
1400 Carn Brea (copper, tin), Illogan [L.].....	19 0 0 ..	25 ..	.. 20 25 ..	280 10 0 ..	2 0 0—June	1862	—
254 Condurrow (cop.), Camborne [L.].....	76 10 0 ..	— ..	.. 88 0 ..	0 2 0—June	1862	—	—
119 Great Work (tin), Germos [L.].....	100 0 0 ..	— ..	.. 15 0 0 ..	5 0 0—Aug.	1864	—	—
1024 Copper Hill (copper), Redruth [L.].....	12 0 0 ..	— ..	.. 2 7 6 ..	— Sept.	1862	—	—
40000 Copper Miners of England [2000 £25 paid, 40000 £100 paid.] ..	— ..	— ..	— ..	— ..	—	—	—
1055 Cradock Moor (copper), St. Cleer [L.].....	9 17 0 ..	— ..	.. 7 12 0 ..	0 4 0—June.	1865	—	—
640 Mount Pleasant (lead), Mold [L.].....	4 0 0 ..	— ..	.. 18 18 0 ..	1 0 6—Aug.	1866	—	—
40000 Mwyndy (iron) [L.].....	3 0 0 ..	— ..	.. 7 0 0 ..	1 0 0—June.	1864	—	—
2500 Nanty Mines (lead), Montgomery [L.].....	20 0 0 ..	— ..	.. 7 0 0 ..	1 0 0—Mar.	1864	—	—
5936 North Treskerby (copper), St. Agnes [L.].....	1 9 0 0 ..	3 1% ..	.. 0 13 0 ..	2 0 2—Feb.	1864	—	—
5000 Orsedd (lead), Flintshire [L.].....	0 8 0 ..	— ..	.. 0 10 4 ..	0 8—Mar.	1862	—	—
1772 Polber (tin), St. Agnes [L.].....	15 0 0 ..	— ..	.. 1 0 0 ..	1 0 0—Nov.	1864	—	—
1024 Polmear (copper), Clitters' Adit [copper] ..	4 3 0 ..	— ..	.. 0 3 0 ..	1 0 6—Mar.	1864	—	—
20000 Porthcawl (cop., lead) [L.].....	20 0 0 ..	— ..	.. 1 0 0 ..	1 0 0—Oct.	1864	—	—
640 Mount Pleasant (lead), Mold [L.].....	4 0 0 ..	— ..	.. 18 18 1 ..	7 6—Aug.	1866	—	—
40000 Porthcawl (cop., lead) [L.].....	4 0 0 ..	— ..	.. 7 0 0 ..	1 0 0—Mar.	1865	—	—
25000 Drake Walls (tin, copper), Calstock [L.].....	2 1 0 ..	— ..	.. 18 0 0 ..	1 6—May.	1865	—	—
3000 Dymwyn (lead), Waies [L.].....	12 6 6 ..	— ..	.. 17 6 0 ..	2 6—Jan.	1862	—	—
122 East Bassett (lead), Redruth [S.E.].....	20 10 0 ..	23 ..	.. 31 23 ..	126 0 0 ..	1 0—Nov.	1864	—
138 East Pool (tin, copper), Pool, Illogan [S.E.].....	24 5 0 ..	— ..	.. 369 10 0 ..	4 0 0—June.	1864	—	—
512 East Bassett (cop.), Camborne [L.].....	5 10 0 ..	5 ..	.. 3 0 0 ..	0 10 0—Mar.	1862	—	—
119 Great Work (tin), Germos [L.].....	100 0 0 ..	— ..	.. 15 0 0 ..	5 0 0—Aug.	1864	—	—
1024 Great Work (tin),							